WORLDWIDE

wwPDB

PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Dec 15, 2024 – 10:33 AM EST

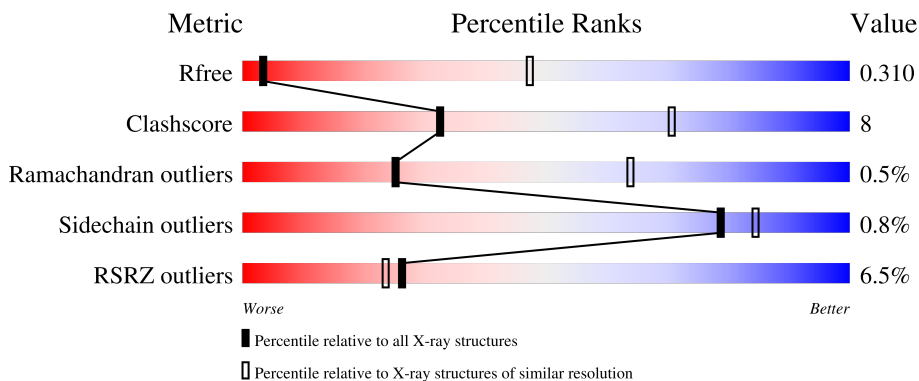|		
PDB ID	:	5L1G
Title	:	AMPA subtype ionotropic glutamate receptor GluA2 in complex with GYKI-Br
Authors	:	Yelshanskaya, M.V.; Singh, A.K.; Sampson, J.M.; Sobolevsky, A.I.
Deposited on	:	2016-07-29
Resolution	:	4.51 Å(reported)

1   Overall quality at a glance   ⓘ

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 4.51 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.

Metric	Percentile Ranks	Value
Rfree		0.310
Clashscore		8
Ramachandran outliers		0.5%
Sidechain outliers		0.8%
RSRZ outliers		6.5%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	1050 (5.10-3.90)
Clashscore	180529	1106 (5.10-3.90)
Ramachandran outliers	177936	1006 (5.10-3.90)
Sidechain outliers	177891	1008 (5.12-3.88)
RSRZ outliers	164620	1046 (5.10-3.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	A	803	3% / 80% / 16% / •
1	B	803	8% / 76% / 20% / •
1	C	803	7% / 77% / 19% / •
1	D	803	6% / 78% / 18% / •

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit crite-

ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	GYB	A	903	X	-	X	-

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 24087 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Glutamate receptor 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	777	Total 5987	C 3848	N 992	O 1118	S 29	0	0	0
1	B	773	Total 5990	C 3844	N 989	O 1128	S 29	0	0	0
1	C	774	Total 5952	C 3824	N 986	O 1114	S 28	0	0	0
1	D	777	Total 5967	C 3831	N 990	O 1119	S 27	0	0	0

There are 72 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	241	GLU	ASN	engineered mutation	UNP P19491
A	?	-	VAL	deletion	UNP P19491
A	?	-	THR	deletion	UNP P19491
A	?	-	LEU	deletion	UNP P19491
A	?	-	PRO	deletion	UNP P19491
A	?	-	SER	deletion	UNP P19491
A	?	-	GLY	deletion	UNP P19491
A	385	ASP	ASN	engineered mutation	UNP P19491
A	392	GLN	ASN	engineered mutation	UNP P19491
A	564	ASP	-	linker	UNP P19491
A	565	THR	-	linker	UNP P19491
A	566	ASP	-	linker	UNP P19491
A	589	ALA	CYS	engineered mutation	UNP P19491
A	827	GLY	-	cloning artifact	UNP P19491
A	828	LEU	-	cloning artifact	UNP P19491
A	829	VAL	-	cloning artifact	UNP P19491
A	830	PRO	-	cloning artifact	UNP P19491
A	831	ARG	-	cloning artifact	UNP P19491
B	241	GLU	ASN	engineered mutation	UNP P19491
B	?	-	VAL	deletion	UNP P19491
B	?	-	THR	deletion	UNP P19491

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Chain	Residue	Modelled	Actual	Comment	Reference
B	?	-	LEU	deletion	UNP P19491
B	?	-	PRO	deletion	UNP P19491
B	?	-	SER	deletion	UNP P19491
B	?	-	GLY	deletion	UNP P19491
B	385	ASP	ASN	engineered mutation	UNP P19491
B	392	GLN	ASN	engineered mutation	UNP P19491
B	564	ASP	-	linker	UNP P19491
B	565	THR	-	linker	UNP P19491
B	566	ASP	-	linker	UNP P19491
B	589	ALA	CYS	engineered mutation	UNP P19491
B	827	GLY	-	cloning artifact	UNP P19491
B	828	LEU	-	cloning artifact	UNP P19491
B	829	VAL	-	cloning artifact	UNP P19491
B	830	PRO	-	cloning artifact	UNP P19491
B	831	ARG	-	cloning artifact	UNP P19491
C	241	GLU	ASN	engineered mutation	UNP P19491
C	?	-	VAL	deletion	UNP P19491
C	?	-	THR	deletion	UNP P19491
C	?	-	LEU	deletion	UNP P19491
C	?	-	PRO	deletion	UNP P19491
C	?	-	SER	deletion	UNP P19491
C	?	-	GLY	deletion	UNP P19491
C	385	ASP	ASN	engineered mutation	UNP P19491
C	392	GLN	ASN	engineered mutation	UNP P19491
C	564	ASP	-	linker	UNP P19491
C	565	THR	-	linker	UNP P19491
C	566	ASP	-	linker	UNP P19491
C	589	ALA	CYS	engineered mutation	UNP P19491
C	827	GLY	-	cloning artifact	UNP P19491
C	828	LEU	-	cloning artifact	UNP P19491
C	829	VAL	-	cloning artifact	UNP P19491
C	830	PRO	-	cloning artifact	UNP P19491
C	831	ARG	-	cloning artifact	UNP P19491
D	241	GLU	ASN	engineered mutation	UNP P19491
D	?	-	VAL	deletion	UNP P19491
D	?	-	THR	deletion	UNP P19491
D	?	-	LEU	deletion	UNP P19491
D	?	-	PRO	deletion	UNP P19491
D	?	-	SER	deletion	UNP P19491
D	?	-	GLY	deletion	UNP P19491
D	385	ASP	ASN	engineered mutation	UNP P19491
D	392	GLN	ASN	engineered mutation	UNP P19491

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Chain	Residue	Modelled	Actual	Comment	Reference
D	564	ASP	-	linker	UNP P19491
D	565	THR	-	linker	UNP P19491
D	566	ASP	-	linker	UNP P19491
D	589	ALA	CYS	engineered mutation	UNP P19491
D	827	GLY	-	cloning artifact	UNP P19491
D	828	LEU	-	cloning artifact	UNP P19491
D	829	VAL	-	cloning artifact	UNP P19491
D	830	PRO	-	cloning artifact	UNP P19491
D	831	ARG	-	cloning artifact	UNP P19491

- Molecule 2 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).
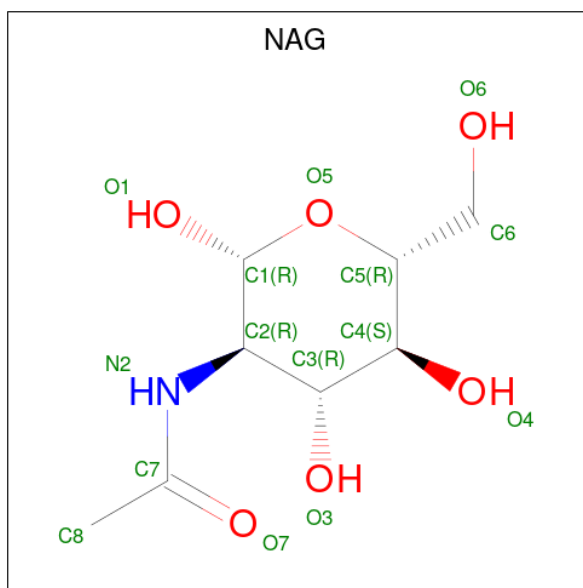
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total	C	N	O	0	0
			14	8	1	5		
2	B	1	Total	C	N	O	0	0
			14	8	1	5		
2	C	1	Total	C	N	O	0	0
			14	8	1	5		
2	D	1	Total	C	N	O	0	0
			14	8	1	5		

- Molecule 3 is (8R)-5-(4-amino-3-bromophenyl)-N,8-dimethyl-8,9-dihydro-2H,7H-[1, 3]dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide (three-letter code: GYB) (formula: $C_{19}H_{19}BrN_4O_3$).

GYB

NBA NH₂
BR1 Br
CAX
CAY
CAW
CAV
CAT
CAU
NAI
NAL CAO OAQ
CAH H N O
CAM
CAJ CAN CAP
NAK CAR
CAB(R) CAD
O CAF O
OAS CAE OAG
CAC
CAA
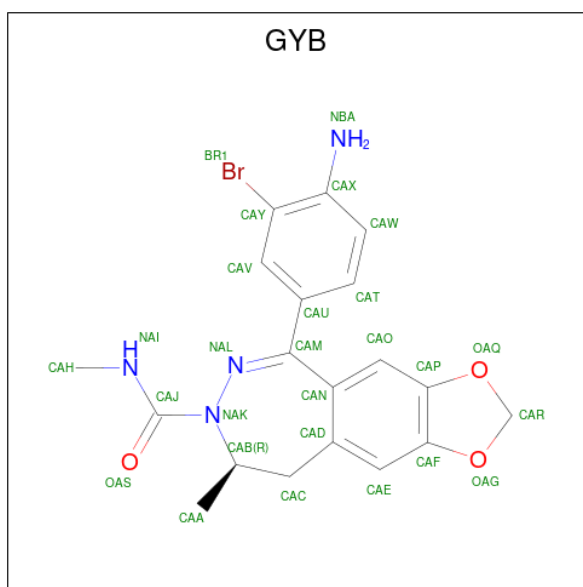
| Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	Br	C	N	O	0	0
			27	1	19	4	3		
3	A	1	Total	Br	C	N	O	0	0
			27	1	19	4	3		
3	B	1	Total	Br	C	N	O	0	0
			27	1	19	4	3		
3	C	1	Total	Br	C	N	O	0	0
			27	1	19	4	3		
3	D	1	Total	Br	C	N	O	0	0
			27	1	19	4	3		

3 Residue-property plots ⓘ

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.
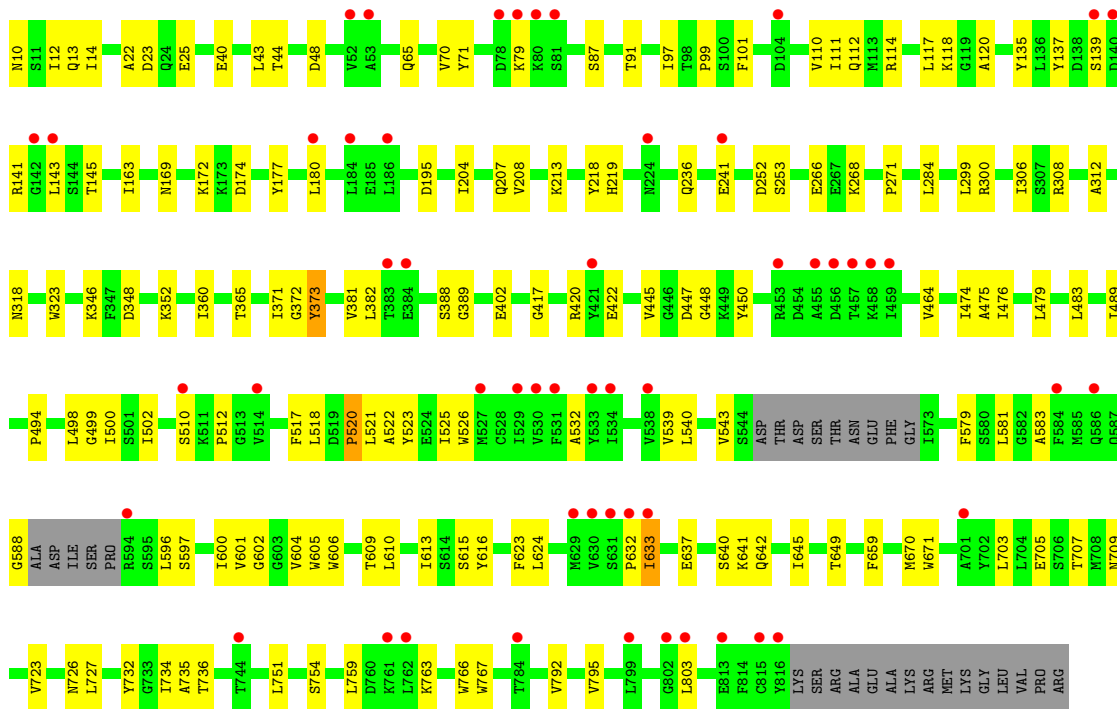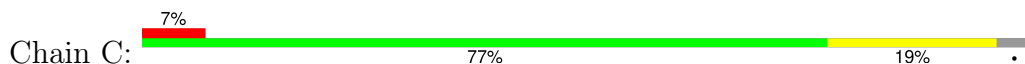
• Molecule 1: Glutamate receptor 2
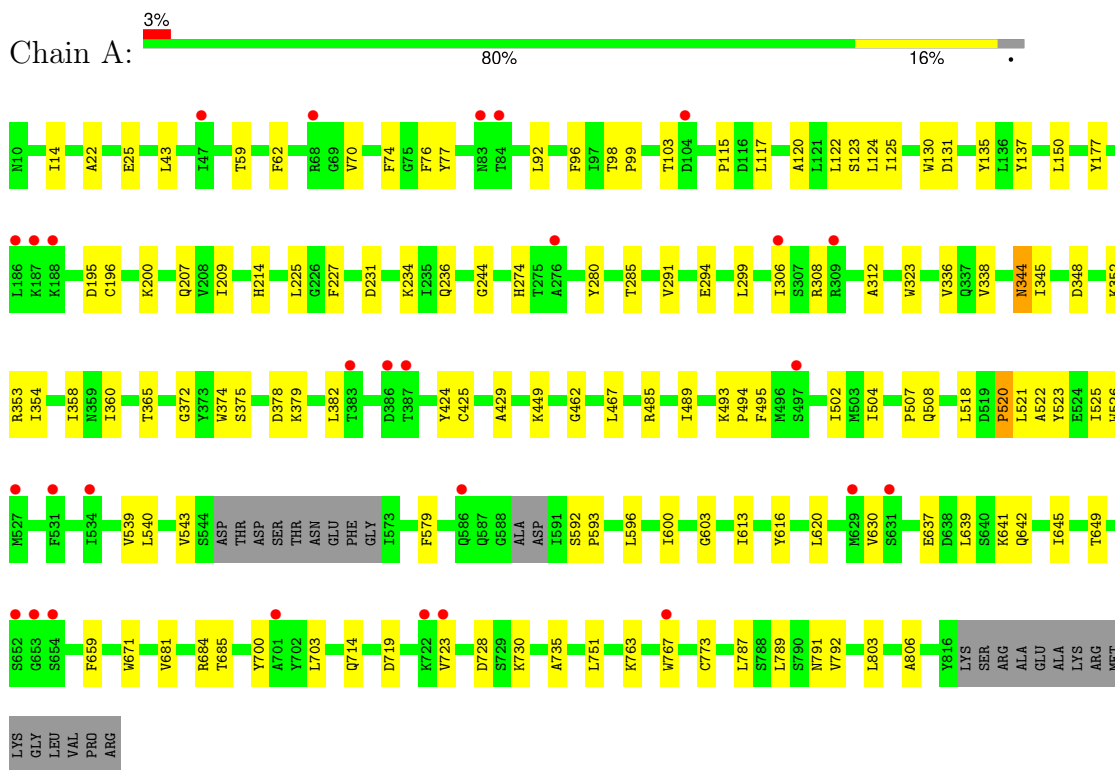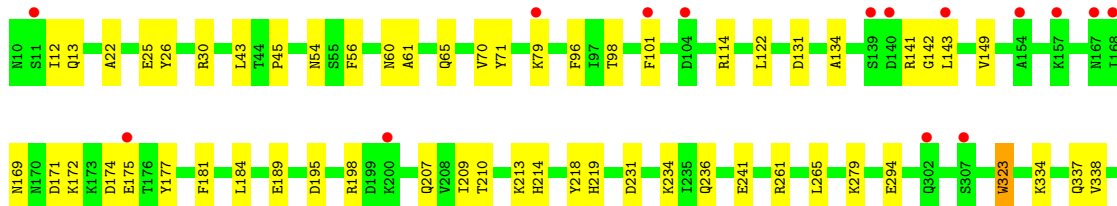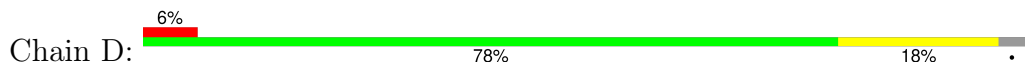
Chain A:

• Molecule 1: Glutamate receptor 2

Chain B:

• Molecule 1: Glutamate receptor 2

Chain C:

• Molecule 1: Glutamate receptor 2

Chain D:
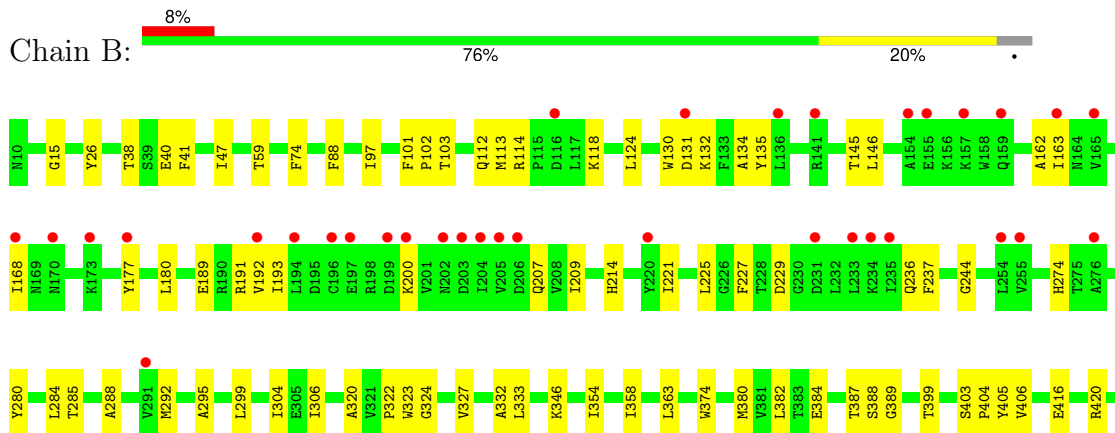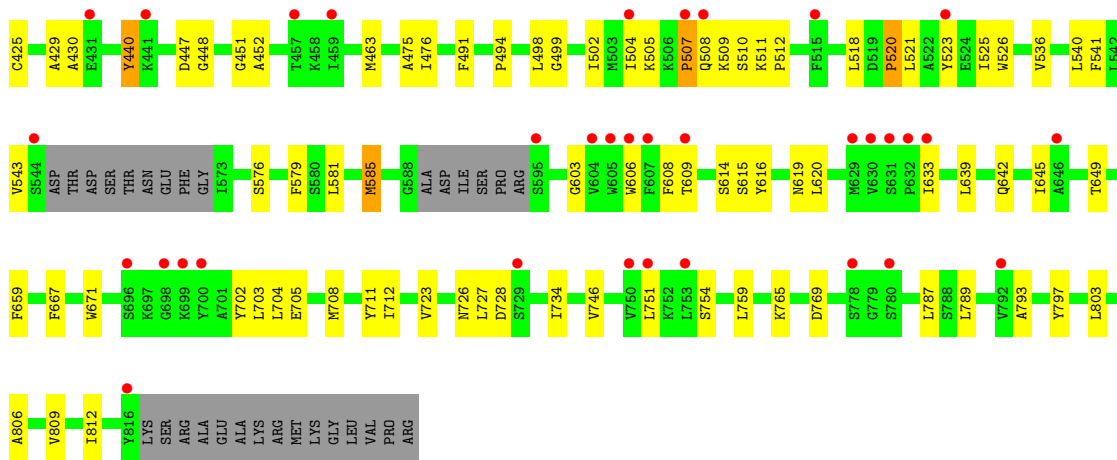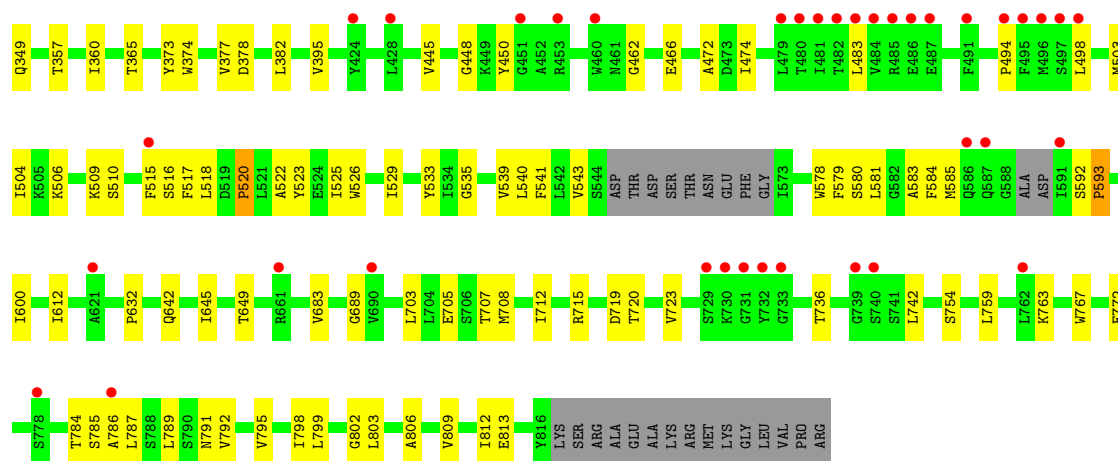
4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	92.79Å 110.40Å 600.14Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.91 – 4.51 48.91 – 4.51	Depositor EDS
% Data completeness (in resolution range)	99.1 (48.91-4.51) 99.1 (48.91-4.51)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$<I/\sigma(I)>$ [1]	1.90 (at 4.45Å)	Xtriage
Refinement program	PHENIX 1.10.1_2155	Depositor
R, R_{free}	0.257 , 0.295 0.270 , 0.310	Depositor DCC
R_{free} test set	1866 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	206.9	Xtriage
Anisotropy	0.233	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.24 , 197.7	EDS
L-test for twinning[2]	$<|L|> = 0.43$, $<L^2> = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.84	EDS
Total number of atoms	24087	wwPDB-VP
Average B, all atoms (Å^2)	246.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.38% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.
[2]Theoretical values of $<|L|>$, $<L^2>$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: NAG, GYB

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$ >5	RMSZ	#$|Z|$ >5
1	A	0.25	0/6110	0.42	0/8271
1	B	0.26	0/6112	0.45	0/8270
1	C	0.25	0/6074	0.43	0/8225
1	D	0.25	0/6090	0.42	0/8248
All	All	0.25	0/24386	0.43	0/33014

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5987	0	5885	83	0
1	B	5990	0	5902	108	0
1	C	5952	0	5823	124	0
1	D	5967	0	5830	100	0
2	A	14	0	13	0	0
2	B	14	0	13	0	0
2	C	14	0	13	1	0
2	D	14	0	13	1	0
3	A	54	0	0	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	27	0	0	3	0
3	C	27	0	0	1	0
3	D	27	0	0	3	0
All	All	24087	0	23492	371	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (371) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:903:GYB:CAR	1:C:610:LEU:HA	1.68	1.22
3:A:903:GYB:OAQ	1:C:613:ILE:CD1	1.89	1.20
3:A:903:GYB:CAP	1:C:613:ILE:HD11	1.72	1.19
3:A:903:GYB:CAR	1:C:613:ILE:HD11	1.76	1.15
3:A:903:GYB:OAQ	1:C:613:ILE:HD11	0.92	1.09
3:A:903:GYB:OAQ	1:C:610:LEU:HD12	1.52	1.07
1:C:498:LEU:HD11	1:C:705:GLU:HB2	1.47	0.97
3:A:903:GYB:CAR	1:C:613:ILE:CD1	2.40	0.97
1:A:449:LYS:HB3	1:A:462:GLY:HA2	1.44	0.96
1:A:613:ILE:HG21	3:A:903:GYB:CAH	2.03	0.89
3:A:903:GYB:CAR	1:C:610:LEU:CA	2.54	0.83
3:A:903:GYB:CAP	1:C:613:ILE:CD1	2.50	0.83
1:D:198:ARG:HH21	1:D:279:LYS:HD3	1.45	0.80
1:C:360:ILE:HB	1:C:372:GLY:HA3	1.66	0.78
1:B:346:LYS:HG3	1:B:354:ILE:HG13	1.67	0.77
1:B:451:GLY:HA2	1:B:452:ALA:HB3	1.67	0.76
1:C:596:LEU:HD13	1:D:578:TRP:HA	1.68	0.75
1:C:521:LEU:HG	1:C:616:TYR:HD2	1.52	0.75
1:A:659:PHE:HB3	1:A:671:TRP:HB2	1.68	0.75
3:A:903:GYB:OAQ	1:C:610:LEU:CD1	2.33	0.74
1:A:649:THR:HG22	1:A:703:LEU:HB2	1.72	0.72
1:B:504:ILE:HD13	1:B:633:ILE:HD12	1.72	0.69
1:C:143:LEU:HG	1:D:143:LEU:HD11	1.75	0.69
1:B:102:PRO:HA	1:B:112:GLN:HG2	1.75	0.68
1:C:177:TYR:HB3	1:C:207:GLN:HG2	1.75	0.68
1:C:12:ILE:HG23	1:C:71:TYR:HD2	1.59	0.68
1:D:377:VAL:HG13	1:D:378:ASP:H	1.57	0.68
1:B:649:THR:HG22	1:B:703:LEU:HB2	1.76	0.67
1:C:522:ALA:H	1:D:787:LEU:HD22	1.58	0.67
1:A:70:VAL:O	1:A:308:ARG:NH1	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:649:THR:HG22	1:C:703:LEU:HB2	1.75	0.67
1:B:765:LYS:HA	1:B:769:ASP:HB2	1.77	0.67
1:C:101:PHE:HA	1:C:114:ARG:HD2	1.77	0.67
1:B:494:PRO:HG3	1:C:494:PRO:HG3	1.77	0.66
1:C:346:LYS:NZ	2:C:901:NAG:O7	2.29	0.66
3:A:903:GYB:BR1	1:B:614:SER:OG	2.66	0.66
3:A:903:GYB:CAP	1:C:610:LEU:HD12	2.25	0.66
1:C:498:LEU:HD13	1:C:707:THR:HG23	1.78	0.65
3:A:903:GYB:CAP	1:C:610:LEU:CD1	2.75	0.65
1:B:510:SER:OG	3:B:902:GYB:OAS	2.13	0.65
1:B:101:PHE:HA	1:B:114:ARG:HD2	1.78	0.64
1:A:603:GLY:HA2	1:B:585:MET:HB3	1.79	0.63
1:B:416:GLU:HA	1:B:420:ARG:HD3	1.80	0.63
1:D:71:TYR:HA	1:D:323:TRP:HH2	1.63	0.63
1:C:596:LEU:HG	1:D:809:VAL:HG11	1.81	0.62
1:C:642:GLN:HE22	1:C:645:ILE:HB	1.65	0.61
1:A:299:LEU:HD13	1:A:306:ILE:HG21	1.81	0.61
1:D:172:LYS:NZ	1:D:175:GLU:OE1	2.33	0.61
1:C:588:GLY:HA2	1:C:605:TRP:HD1	1.65	0.61
1:B:608:PHE:HD1	1:C:795:VAL:HG12	1.66	0.61
1:B:536:VAL:HG22	1:C:803:LEU:HD21	1.83	0.61
1:C:518:LEU:O	1:C:526:TRP:NE1	2.34	0.61
1:C:14:ILE:HD13	1:C:43:LEU:HD23	1.82	0.61
1:D:337:GLN:NE2	2:D:901:NAG:O7	2.34	0.60
1:C:517:PHE:CE1	1:C:795:VAL:HG22	2.38	0.59
1:A:135:TYR:CE1	1:A:137:TYR:HB3	2.38	0.59
1:B:508:GLN:N	1:B:509:LYS:HA	2.18	0.59
1:A:525:ILE:HG13	1:B:789:LEU:HD12	1.85	0.59
1:A:522:ALA:H	1:B:787:LEU:HD22	1.67	0.59
1:A:539:VAL:HG21	1:B:803:LEU:HD22	1.85	0.59
1:C:540:LEU:HA	1:C:543:VAL:HG22	1.85	0.59
1:B:498:LEU:HD12	1:B:705:GLU:HB2	1.84	0.58
1:B:447:ASP:N	1:B:448:GLY:HA2	2.18	0.58
1:C:445:VAL:HG22	1:C:448:GLY:H	1.68	0.58
1:C:640:SER:HB3	1:C:670:MET:HG2	1.84	0.58
1:B:134:ALA:HB3	1:B:192:VAL:HG22	1.86	0.58
1:C:117:LEU:HD12	1:C:120:ALA:HB3	1.86	0.58
1:C:522:ALA:HB3	1:C:525:ILE:HD13	1.85	0.58
1:C:597:SER:N	1:D:813:GLU:OE2	2.37	0.58
1:B:425:CYS:O	1:B:429:ALA:N	2.37	0.57
1:B:103:THR:HG23	1:B:112:GLN:HE21	1.69	0.57

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Full wwPDB X-ray Structure Validation Report

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:476:ILE:HG22	1:B:734:ILE:HG23	1.87	0.57
1:D:498:LEU:HD12	1:D:705:GLU:HB2	1.86	0.57
1:A:124:LEU:HD13	1:A:360:ILE:HD13	1.86	0.57
3:A:903:GYB:CAR	1:C:613:ILE:HD13	2.33	0.57
1:B:168:ILE:HD11	1:B:200:LYS:HZ1	1.70	0.57
1:C:299:LEU:HD13	1:C:306:ILE:HD13	1.87	0.57
1:A:344:ASN:HD22	1:A:345:ILE:H	1.51	0.57
1:A:344:ASN:O	1:A:353:ARG:NH2	2.38	0.56
1:C:402:GLU:OE1	1:C:450:TYR:OH	2.22	0.56
1:D:22:ALA:HB1	1:D:25:GLU:HB2	1.87	0.56
1:A:806:ALA:HA	1:D:600:ILE:HD11	1.85	0.56
1:B:168:ILE:HD12	1:B:168:ILE:O	2.05	0.56
1:B:382:LEU:HD13	1:B:384:GLU:HG3	1.88	0.56
1:D:231:ASP:HB3	1:D:234:LYS:HE2	1.86	0.56
1:D:134:ALA:HB2	1:D:189:GLU:HG2	1.87	0.56
1:A:714:GLN:HA	1:A:773:CYS:HB2	1.88	0.56
1:C:13:GLN:HA	1:C:44:THR:HB	1.87	0.56
1:C:447:ASP:OD1	1:C:447:ASP:N	2.40	0.55
1:B:606:TRP:HA	1:B:609:THR:HG22	1.88	0.55
1:C:623:PHE:HZ	1:D:786:ALA:HA	1.71	0.55
1:B:615:SER:HB3	3:C:902:GYB:BR1	2.61	0.55
1:C:474:ILE:HG13	1:C:736:THR:HG22	1.87	0.55
1:D:294:GLU:HG3	1:D:338:VAL:HG11	1.87	0.55
1:A:792:VAL:HG21	1:D:525:ILE:HG12	1.89	0.55
1:C:604:VAL:HG12	1:D:799:LEU:HD12	1.88	0.55
1:D:649:THR:HG22	1:D:703:LEU:HB2	1.88	0.55
1:C:48:ASP:OD1	1:C:65:GLN:NE2	2.40	0.54
1:B:603:GLY:HA3	1:C:581:LEU:HD21	1.87	0.54
1:C:10:ASN:HB3	1:C:300:ARG:HH22	1.70	0.54
1:A:177:TYR:HD2	1:A:207:GLN:HG3	1.72	0.54
1:A:521:LEU:HD13	1:A:616:TYR:HD2	1.73	0.54
1:C:754:SER:HB2	1:C:759:LEU:HD12	1.88	0.54
1:A:209:ILE:HA	1:A:214:HIS:CD2	2.42	0.54
1:B:15:GLY:O	1:B:74:PHE:N	2.38	0.54
3:A:903:GYB:CAR	1:C:610:LEU:HD12	2.36	0.54
1:A:59:THR:HG21	1:B:59:THR:HG21	1.91	0.53
1:B:667:PHE:HE1	1:B:727:LEU:HD13	1.73	0.53
1:B:751:LEU:HB2	1:C:483:LEU:HD13	1.90	0.53
1:A:684:ARG:HG2	1:A:685:THR:HG23	1.89	0.53
1:B:227:PHE:CD1	1:B:244:GLY:HA3	2.43	0.53
1:B:633:ILE:HD13	1:B:639:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:579:PHE:HE1	1:A:592:SER:H	1.56	0.53
1:B:131:ASP:OD1	1:B:132:LYS:N	2.42	0.53
1:B:510:SER:HB3	1:B:512:PRO:HD3	1.90	0.53
1:B:754:SER:HB2	1:B:759:LEU:HD12	1.91	0.52
1:B:274:HIS:O	1:B:274:HIS:ND1	2.42	0.52
1:D:540:LEU:HA	1:D:543:VAL:HG22	1.91	0.52
1:D:213:LYS:NZ	1:D:218:TYR:OH	2.34	0.52
1:A:231:ASP:HB3	1:A:234:LYS:HE2	1.92	0.52
1:A:294:GLU:HG3	1:A:338:VAL:HG11	1.91	0.52
1:B:510:SER:HB3	1:B:511:LYS:HA	1.92	0.52
1:A:751:LEU:HB2	1:D:483:LEU:HD13	1.90	0.52
1:C:600:ILE:HA	1:D:581:LEU:HD21	1.91	0.52
1:A:344:ASN:HD22	1:A:345:ILE:N	2.07	0.52
1:A:803:LEU:HD22	1:D:539:VAL:HG21	1.92	0.52
1:D:498:LEU:HB3	1:D:707:THR:HG23	1.91	0.52
1:C:141:ARG:NH2	1:C:195:ASP:OD1	2.43	0.51
1:D:141:ARG:NH2	1:D:195:ASP:OD1	2.42	0.51
1:A:137:TYR:HA	1:A:195:ASP:HB3	1.92	0.51
1:B:620:LEU:HD21	3:B:902:GYB:BR1	2.65	0.51
1:B:659:PHE:HB3	1:B:671:TRP:HB2	1.91	0.51
1:C:521:LEU:HD23	1:D:787:LEU:HD13	1.92	0.51
1:B:708:MET:O	1:B:712:ILE:HG12	2.10	0.51
1:B:642:GLN:HE22	1:B:645:ILE:HB	1.75	0.51
1:D:12:ILE:HG23	1:D:71:TYR:HD2	1.76	0.51
1:D:715:ARG:HD3	1:D:772:GLU:HG2	1.92	0.51
1:A:494:PRO:HG3	1:D:494:PRO:HG3	1.93	0.51
1:B:388:SER:HB3	1:B:389:GLY:HA3	1.92	0.51
1:A:22:ALA:HB1	1:A:25:GLU:HB2	1.93	0.50
1:D:517:PHE:CE1	1:D:795:VAL:HG22	2.46	0.50
1:A:681:VAL:O	1:A:700:TYR:OH	2.24	0.50
1:B:163:ILE:HG21	1:B:180:LEU:HD13	1.93	0.50
1:D:174:ASP:OD1	1:D:207:GLN:NE2	2.44	0.50
1:D:509:LYS:HA	1:D:510:SER:C	2.31	0.50
1:A:520:PRO:HG3	1:A:620:LEU:HD13	1.94	0.50
3:A:903:GYB:CAR	1:C:610:LEU:CD1	2.89	0.50
1:C:97:ILE:HA	1:C:111:ILE:HB	1.94	0.50
1:C:99:PRO:HB3	1:C:284:LEU:HB2	1.93	0.50
1:A:227:PHE:CD1	1:A:244:GLY:HA3	2.48	0.49
1:B:97:ILE:HD11	1:B:333:LEU:HD22	1.95	0.49
1:D:450:TYR:HA	1:D:462:GLY:HA3	1.94	0.49
1:A:502:ILE:HD13	1:A:639:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:619:ASN:HA	1:C:624:LEU:HD13	1.94	0.49
1:D:236:GLN:NE2	1:D:365:THR:O	2.44	0.49
1:A:117:LEU:HD13	1:A:225:LEU:HD21	1.93	0.49
1:A:14:ILE:HD13	1:A:43:LEU:HD23	1.95	0.49
1:A:308:ARG:NE	1:A:312:ALA:HB2	2.27	0.49
1:B:135:TYR:CD2	1:B:146:LEU:HD13	2.48	0.49
1:B:502:ILE:HD13	1:B:639:LEU:HD13	1.94	0.49
1:B:702:TYR:CE2	1:B:704:LEU:HB3	2.47	0.49
1:C:252:ASP:OD1	1:C:253:SER:N	2.45	0.49
1:D:784:THR:HA	1:D:785:SER:HB3	1.93	0.49
1:B:508:GLN:H	1:B:509:LYS:HA	1.78	0.48
1:A:425:CYS:O	1:A:429:ALA:N	2.43	0.48
1:C:13:GLN:HG2	1:C:70:VAL:HG12	1.95	0.48
1:D:516:SER:HB2	3:D:902:GYB:CAA	2.43	0.48
1:D:474:ILE:HG13	1:D:736:THR:HG22	1.96	0.48
1:B:405:TYR:HB3	1:B:425:CYS:SG	2.54	0.48
1:D:382:LEU:H	1:D:382:LEU:HD23	1.77	0.48
1:C:579:PHE:O	1:C:583:ALA:N	2.47	0.48
1:A:493:LYS:HG3	1:A:751:LEU:HD21	1.94	0.48
1:B:38:THR:HG23	1:B:40:GLU:H	1.78	0.48
1:C:118:LYS:HG2	1:C:145:THR:HG22	1.95	0.48
1:B:225:LEU:HB2	1:B:280:TYR:CD2	2.49	0.48
1:B:499:GLY:HA3	1:B:726:ASN:HB3	1.95	0.47
1:C:213:LYS:NZ	1:C:218:TYR:OH	2.39	0.47
1:A:485:ARG:O	1:A:489:ILE:HG13	2.14	0.47
1:C:373:TYR:HB3	1:C:381:VAL:O	2.14	0.47
1:D:708:MET:O	1:D:712:ILE:HG12	2.14	0.47
1:A:150:LEU:HD22	1:B:162:ALA:HB3	1.96	0.47
1:A:177:TYR:CD2	1:A:207:GLN:HG3	2.48	0.47
1:D:209:ILE:HA	1:D:214:HIS:CD2	2.49	0.47
1:A:522:ALA:N	1:B:787:LEU:HD22	2.29	0.47
1:C:169:ASN:HD21	1:C:172:LYS:HD3	1.79	0.47
1:D:763:LYS:O	1:D:767:TRP:HB2	2.14	0.47
1:B:430:ALA:HA	1:B:440:TYR:HE1	1.79	0.47
1:B:505:LYS:HE2	1:B:507:PRO:HB3	1.96	0.47
1:C:632:PRO:HB2	1:C:633:ILE:HB	1.96	0.47
1:D:787:LEU:HD21	1:D:792:VAL:HG21	1.95	0.47
1:A:196:CYS:HB3	1:A:200:LYS:HB2	1.96	0.47
1:C:502:ILE:HB	1:C:723:VAL:HG23	1.96	0.47
1:B:193:ILE:HG12	1:B:221:ILE:HB	1.96	0.47
1:D:592:SER:N	1:D:593:PRO:HD3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:371:ILE:HA	1:C:382:LEU:HD22	1.97	0.47
1:C:600:ILE:HD11	1:D:806:ALA:HA	1.97	0.47
1:C:177:TYR:CB	1:C:207:GLN:HG2	2.45	0.46
1:A:291:VAL:HA	1:A:336:VAL:HG11	1.97	0.46
1:A:489:ILE:HD13	1:A:735:ALA:HB1	1.98	0.46
1:B:124:LEU:HA	1:B:380:MET:HE1	1.95	0.46
1:B:540:LEU:HA	1:B:543:VAL:HG22	1.97	0.46
1:D:504:ILE:HD11	1:D:723:VAL:HG11	1.96	0.46
1:D:754:SER:HB2	1:D:759:LEU:HD12	1.98	0.46
1:A:375:SER:N	1:A:378:ASP:O	2.46	0.46
1:C:79:LYS:HD2	1:C:139:SER:O	2.16	0.46
1:D:789:LEU:HA	1:D:792:VAL:HB	1.98	0.46
1:A:789:LEU:HA	1:D:525:ILE:HD11	1.96	0.46
1:B:463:MET:HE3	1:B:475:ALA:HB1	1.98	0.46
1:A:620:LEU:HD21	3:A:902:GYB:BR1	2.71	0.46
1:A:637:GLU:O	1:A:641:LYS:N	2.49	0.46
1:A:358:ILE:HD12	1:A:374:TRP:HE1	1.79	0.46
1:B:387:THR:N	1:B:388:SER:HA	2.31	0.46
1:B:404:PRO:HG3	1:B:711:TYR:CD1	2.51	0.46
1:A:540:LEU:HA	1:A:543:VAL:HG22	1.98	0.45
1:D:181:PHE:HA	1:D:184:LEU:HB2	1.97	0.45
1:B:734:ILE:HG21	1:B:746:VAL:HG11	1.98	0.45
1:A:787:LEU:O	1:D:522:ALA:HB2	2.16	0.45
1:B:132:LYS:NZ	1:B:189:GLU:OE2	2.49	0.45
1:B:399:THR:HG21	1:B:406:VAL:HG21	1.97	0.45
1:A:236:GLN:NE2	1:A:365:THR:O	2.49	0.45
1:A:719:ASP:OD1	1:A:719:ASP:N	2.47	0.45
1:B:26:TYR:HE1	1:B:47:ILE:HG12	1.81	0.45
1:B:74:PHE:CZ	1:B:285:THR:HG23	2.51	0.45
1:C:475:ALA:HB3	1:C:735:ALA:HB3	1.97	0.45
1:C:604:VAL:HG21	1:D:802:GLY:HA3	1.99	0.45
1:A:131:ASP:N	1:A:131:ASP:OD1	2.49	0.45
1:D:357:THR:HG23	1:D:373:TYR:HB2	1.99	0.45
1:B:118:LYS:HB3	1:B:145:THR:HG22	1.98	0.45
1:B:177:TYR:HB3	1:B:207:GLN:HG2	1.98	0.45
1:B:406:VAL:HG23	1:B:425:CYS:HB2	1.99	0.45
1:B:502:ILE:HB	1:B:723:VAL:HG23	1.97	0.45
1:C:23:ASP:HB3	1:C:271:PRO:HG2	1.99	0.45
1:C:600:ILE:HG22	1:D:581:LEU:CD1	2.46	0.45
1:A:372:GLY:HA2	1:A:382:LEU:HB3	1.99	0.45
1:B:520:PRO:HG3	1:B:620:LEU:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:236:GLN:NE2	1:C:365:THR:O	2.45	0.45
1:D:131:ASP:OD1	1:D:131:ASP:N	2.47	0.45
1:D:198:ARG:NH2	1:D:279:LYS:HD3	2.22	0.45
1:C:464:VAL:HG22	1:C:479:LEU:HD21	1.98	0.45
1:D:683:VAL:HG11	1:D:689:GLY:HA2	1.98	0.45
1:A:103:THR:O	1:A:352:LYS:NZ	2.43	0.44
1:A:125:ILE:HG23	1:A:130:TRP:HB2	1.99	0.44
1:A:518:LEU:O	1:A:526:TRP:NE1	2.50	0.44
1:B:387:THR:O	1:B:387:THR:OG1	2.24	0.44
1:C:498:LEU:HD22	1:C:732:TYR:CZ	2.53	0.44
1:C:499:GLY:HA3	1:C:726:ASN:HB3	1.98	0.44
1:D:360:ILE:HD11	1:D:374:TRP:HB2	1.98	0.44
1:A:504:ILE:HD11	1:A:723:VAL:HG11	1.99	0.44
1:B:299:LEU:HD13	1:B:306:ILE:HG21	1.99	0.44
1:C:135:TYR:CE2	1:C:137:TYR:HB3	2.53	0.44
1:C:476:ILE:HG12	1:C:734:ILE:HG23	1.99	0.44
1:C:521:LEU:HA	1:D:787:LEU:HD13	1.99	0.44
1:D:143:LEU:H	1:D:143:LEU:HD23	1.82	0.44
1:A:642:GLN:HE22	1:A:645:ILE:HB	1.83	0.44
1:B:358:ILE:O	1:B:374:TRP:N	2.49	0.44
1:C:539:VAL:HG21	1:D:803:LEU:HD22	1.99	0.44
1:A:62:PHE:HE2	1:A:92:LEU:HD12	1.82	0.44
1:A:507:PRO:HA	1:A:508:GLN:CB	2.48	0.44
1:B:130:TRP:CE2	1:B:191:ARG:HD3	2.52	0.44
1:D:79:LYS:HD2	1:D:142:GLY:HA2	1.98	0.44
1:B:576:SER:HA	1:B:579:PHE:HB3	1.99	0.44
1:B:74:PHE:HA	1:B:97:ILE:O	2.18	0.44
1:A:791:ASN:OD1	3:A:902:GYB:NAI	2.50	0.43
3:A:903:GYB:OAG	1:C:606:TRP:NE1	2.51	0.43
1:B:299:LEU:HD21	1:B:332:ALA:HB2	2.00	0.43
1:C:388:SER:H	1:C:389:GLY:HA2	1.82	0.43
1:C:417:GLY:O	1:C:420:ARG:NE	2.51	0.43
1:D:122:LEU:HD21	1:D:149:VAL:HA	2.01	0.43
1:A:467:LEU:HD23	1:A:467:LEU:HA	1.88	0.43
1:A:600:ILE:HD11	1:B:806:ALA:HA	1.99	0.43
1:B:304:ILE:HD12	1:B:304:ILE:O	2.19	0.43
1:B:793:ALA:HB1	1:B:797:TYR:CE2	2.54	0.43
1:B:809:VAL:O	1:B:812:ILE:HG12	2.19	0.43
1:D:101:PHE:HA	1:D:114:ARG:HD2	2.00	0.43
1:D:169:ASN:ND2	1:D:171:ASP:OD1	2.51	0.43
1:D:518:LEU:O	1:D:526:TRP:NE1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:22:ALA:HB1	1:C:25:GLU:HB2	2.00	0.43
1:C:163:ILE:HG21	1:C:180:LEU:HD13	2.00	0.43
1:C:500:ILE:HB	1:C:727:LEU:HB2	1.99	0.43
1:C:500:ILE:O	1:C:727:LEU:N	2.51	0.43
1:D:171:ASP:OD1	1:D:172:LYS:N	2.51	0.43
1:D:506:LYS:N	1:D:719:ASP:O	2.43	0.43
1:C:763:LYS:HD2	1:C:767:TRP:CE3	2.54	0.43
1:D:26:TYR:CE2	1:D:30:ARG:HD2	2.53	0.43
1:C:520:PRO:HB2	1:C:616:TYR:CE2	2.54	0.43
1:A:115:PRO:HA	1:A:353:ARG:HB2	2.01	0.43
1:C:615:SER:OG	3:D:902:GYB:NBA	2.52	0.43
1:D:517:PHE:O	1:D:520:PRO:HD2	2.18	0.43
1:B:608:PHE:CD1	1:C:795:VAL:HG12	2.49	0.42
1:C:87:SER:OG	1:D:54:ASN:OD1	2.36	0.42
1:D:529:ILE:HD13	1:D:612:ILE:HD12	2.01	0.42
1:B:295:ALA:HB2	1:B:333:LEU:HD23	2.02	0.42
1:C:219:HIS:HA	1:C:241:GLU:O	2.19	0.42
1:C:464:VAL:HG13	1:C:489:ILE:HG12	2.00	0.42
1:D:503:MET:HG3	1:D:720:THR:HB	2.02	0.42
1:B:320:ALA:O	1:B:322:PRO:HD3	2.19	0.42
1:B:521:LEU:HD13	1:B:616:TYR:HD1	1.84	0.42
1:D:61:ALA:O	1:D:65:GLN:HG2	2.18	0.42
1:A:120:ALA:HB2	1:A:374:TRP:NE1	2.34	0.42
1:D:466:GLU:O	1:D:472:ALA:N	2.52	0.42
1:D:580:SER:O	1:D:584:PHE:N	2.53	0.42
1:D:809:VAL:HA	1:D:812:ILE:HG12	2.02	0.42
1:A:613:ILE:CG2	3:A:903:GYB:CAH	2.87	0.42
1:B:518:LEU:HB2	1:B:526:TRP:CE2	2.54	0.42
1:C:266:GLU:HG2	1:C:268:LYS:H	1.85	0.42
1:D:261:ARG:HA	1:D:261:ARG:HD2	1.81	0.42
1:D:43:LEU:O	1:D:45:PRO:HD3	2.20	0.42
1:B:237:PHE:HB2	1:D:210:THR:HG22	2.02	0.42
1:B:403:SER:HA	1:B:404:PRO:HA	1.87	0.42
1:D:13:GLN:HG3	1:D:70:VAL:HG12	2.02	0.42
1:A:225:LEU:HB2	1:A:280:TYR:CD2	2.55	0.42
1:B:209:ILE:HG23	1:B:214:HIS:NE2	2.33	0.42
1:A:123:SER:OG	1:A:379:LYS:HD3	2.20	0.41
1:C:588:GLY:C	1:C:602:GLY:HA2	2.41	0.41
1:D:219:HIS:HA	1:D:241:GLU:O	2.20	0.41
1:A:600:ILE:HA	1:B:581:LEU:HD21	2.01	0.41
1:A:728:ASP:OD2	1:A:730:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:38:THR:HG23	1:B:41:PHE:H	1.84	0.41
1:C:110:VAL:HG12	1:C:112:GLN:HG3	2.02	0.41
1:C:308:ARG:HE	1:C:312:ALA:HB2	1.85	0.41
1:C:597:SER:O	1:C:601:VAL:HG23	2.20	0.41
1:D:334:LYS:NZ	1:D:349:GLN:O	2.34	0.41
1:A:424:TYR:HE2	1:A:495:PHE:HE2	1.68	0.41
1:C:637:GLU:HG2	1:C:641:LYS:HE3	2.01	0.41
1:C:659:PHE:HB3	1:C:671:TRP:HB2	2.02	0.41
1:D:395:VAL:HG21	1:D:742:LEU:HD21	2.02	0.41
3:D:902:GYB:CAT	3:D:902:GYB:CAO	2.97	0.41
1:D:795:VAL:O	1:D:798:ILE:HG22	2.20	0.41
1:B:518:LEU:O	1:B:526:TRP:NE1	2.53	0.41
1:B:525:ILE:HG12	1:C:792:VAL:HG11	2.02	0.41
1:D:579:PHE:O	1:D:583:ALA:N	2.54	0.41
1:A:763:LYS:O	1:A:767:TRP:HB2	2.20	0.41
1:B:324:GLY:O	1:B:327:VAL:HG12	2.21	0.41
1:C:204:ILE:O	1:C:208:VAL:HG23	2.20	0.41
1:C:525:ILE:HD11	1:D:789:LEU:HB3	2.03	0.41
1:C:604:VAL:HG11	1:D:802:GLY:HA3	2.02	0.41
1:B:288:ALA:O	1:B:292:MET:HG3	2.20	0.41
1:B:507:PRO:HD2	1:B:508:GLN:HA	2.02	0.41
1:C:600:ILE:HG22	1:D:581:LEU:HD13	2.03	0.41
1:D:515:PHE:HD2	1:D:515:PHE:HA	1.77	0.41
1:D:535:GLY:O	1:D:539:VAL:HG23	2.21	0.41
1:D:715:ARG:HD3	1:D:715:ARG:HA	1.91	0.41
1:A:348:ASP:HB3	1:A:354:ILE:HG21	2.03	0.41
1:B:236:GLN:HG3	1:B:363:LEU:HD11	2.03	0.41
1:C:135:TYR:HH	1:C:145:THR:HG1	1.64	0.41
1:C:502:ILE:O	1:C:709:ASN:ND2	2.52	0.41
1:C:751:LEU:HD23	1:C:751:LEU:HA	1.86	0.41
1:D:96:PHE:CE2	1:D:98:THR:HB	2.56	0.41
1:D:377:VAL:HG13	1:D:378:ASP:N	2.32	0.41
1:A:76:PHE:CE2	1:A:99:PRO:HG2	2.56	0.41
1:C:532:ALA:HB1	1:C:605:TRP:HZ3	1.86	0.41
1:D:642:GLN:HE22	1:D:645:ILE:HB	1.86	0.41
1:B:113:MET:HB3	1:B:284:LEU:HD22	2.03	0.40
1:C:174:ASP:OD1	1:C:207:GLN:NE2	2.54	0.40
1:C:318:ASN:HB2	1:D:60:ASN:HD21	1.86	0.40
3:A:903:GYB:CAP	1:C:610:LEU:HD13	2.51	0.40
1:B:728:ASP:N	1:B:728:ASP:OD1	2.54	0.40
1:C:422:GLU:HB2	1:C:766:TRP:HH2	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:445:VAL:HG13	1:D:448:GLY:HA2	2.03	0.40
1:A:122:LEU:HD23	1:A:122:LEU:HA	1.93	0.40
1:A:308:ARG:HE	1:A:312:ALA:HB2	1.85	0.40
1:B:229:ASP:OD2	1:B:280:TYR:N	2.54	0.40
1:C:91:THR:HG21	1:D:56:PHE:CE1	2.56	0.40
1:A:96:PHE:CE2	1:A:98:THR:HB	2.57	0.40
1:C:10:ASN:ND2	1:C:40:GLU:O	2.51	0.40
1:C:606:TRP:HA	1:C:609:THR:HG22	2.03	0.40
1:D:261:ARG:O	1:D:265:LEU:HG	2.22	0.40
1:A:74:PHE:CZ	1:A:285:THR:HG23	2.56	0.40
1:B:620:LEU:HD11	3:B:902:GYB:CAY	2.52	0.40
1:C:348:ASP:OD1	1:C:352:LYS:N	2.54	0.40
1:C:388:SER:N	1:C:389:GLY:HA2	2.37	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	771/803 (96%)	715 (93%)	52 (7%)	4 (0%)	25	64
1	B	767/803 (96%)	708 (92%)	57 (7%)	2 (0%)	37	72
1	C	768/803 (96%)	715 (93%)	48 (6%)	5 (1%)	19	56
1	D	771/803 (96%)	720 (93%)	48 (6%)	3 (0%)	30	68
All	All	3077/3212 (96%)	2858 (93%)	205 (7%)	14 (0%)	25	64

All (14) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	510	SER
1	A	596	LEU

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Mol	Chain	Res	Type
1	D	593	PRO
1	C	373	TYR
1	A	520	PRO
1	A	630	VAL
1	D	520	PRO
1	C	512	PRO
1	C	520	PRO
1	B	520	PRO
1	C	633	ILE
1	D	632	PRO
1	A	593	PRO
1	B	507	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	627/683 (92%)	622 (99%)	5 (1%)	79	84
1	B	634/683 (93%)	627 (99%)	7 (1%)	70	80
1	C	619/683 (91%)	617 (100%)	2 (0%)	91	91
1	D	620/683 (91%)	613 (99%)	7 (1%)	70	80
All	All	2500/2732 (92%)	2479 (99%)	21 (1%)	79	84

All (21) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	77	TYR
1	A	274	HIS
1	A	323	TRP
1	A	344	ASN
1	A	523	TYR
1	B	88	PHE
1	B	323	TRP
1	B	440	TYR
1	B	491	PHE

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Mol	Chain	Res	Type
1	B	523	TYR
1	B	541	PHE
1	B	585	MET
1	C	323	TRP
1	C	523	TYR
1	D	177	TYR
1	D	323	TRP
1	D	523	TYR
1	D	533	TYR
1	D	541	PHE
1	D	585	MET
1	D	791	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	791	ASN
1	C	207	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

9 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond

length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
3	GYB	D	902	-	28,30,30	4.34	12 (42%)	32,44,44	2.46	12 (37%)
3	GYB	B	902	-	28,30,30	4.40	12 (42%)	32,44,44	2.14	8 (25%)
2	NAG	B	901	1	14,14,15	0.37	0	17,19,21	0.62	1 (5%)
3	GYB	C	902	-	28,30,30	4.29	13 (46%)	32,44,44	2.69	13 (40%)
2	NAG	A	901	1	14,14,15	0.80	1 (7%)	17,19,21	0.67	0
2	NAG	C	901	1	14,14,15	0.38	0	17,19,21	0.65	1 (5%)
2	NAG	D	901	1	14,14,15	0.54	0	17,19,21	0.62	0
3	GYB	A	903	-	28,30,30	2.47	9 (32%)	32,44,44	2.29	9 (28%)
3	GYB	A	902	-	28,30,30	4.42	13 (46%)	32,44,44	2.32	12 (37%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	GYB	D	902	-	-	3/6/32/32	0/3/4/4
3	GYB	B	902	-	-	4/6/32/32	0/3/4/4
2	NAG	B	901	1	-	0/6/23/26	0/1/1/1
3	GYB	C	902	-	-	2/6/32/32	0/3/4/4
2	NAG	A	901	1	-	0/6/23/26	0/1/1/1
2	NAG	C	901	1	-	0/6/23/26	0/1/1/1
2	NAG	D	901	1	-	0/6/23/26	0/1/1/1
3	GYB	A	903	-	1/1/4/5	4/6/32/32	0/3/4/4
3	GYB	A	902	-	-	3/6/32/32	0/3/4/4

All (60) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	902	GYB	CAM-NAL	14.89	1.46	1.30
3	D	902	GYB	CAM-NAL	14.52	1.46	1.30
3	C	902	GYB	CAM-NAL	14.51	1.46	1.30
3	B	902	GYB	CAM-NAL	14.27	1.45	1.30
3	B	902	GYB	CAJ-NAI	11.00	1.48	1.34
3	A	902	GYB	CAJ-NAI	10.66	1.48	1.34
3	D	902	GYB	CAJ-NAI	10.35	1.48	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	902	GYB	CAJ-NAI	9.98	1.47	1.34
3	A	903	GYB	CAU-CAM	-6.18	1.40	1.49
3	B	902	GYB	CAN-CAM	5.64	1.57	1.49
3	A	903	GYB	CAN-CAM	-5.53	1.41	1.49
3	A	902	GYB	CAN-CAM	5.37	1.56	1.49
3	A	903	GYB	CAM-NAL	5.34	1.36	1.30
3	C	902	GYB	CAN-CAM	5.32	1.56	1.49
3	D	902	GYB	CAN-CAM	5.31	1.56	1.49
3	D	902	GYB	OAG-CAR	-5.13	1.33	1.43
3	C	902	GYB	OAG-CAR	-5.12	1.33	1.43
3	A	902	GYB	OAG-CAR	-5.12	1.33	1.43
3	C	902	GYB	OAQ-CAR	-5.11	1.33	1.43
3	D	902	GYB	OAQ-CAR	-5.08	1.33	1.43
3	A	902	GYB	OAQ-CAR	-5.04	1.33	1.43
3	B	902	GYB	OAG-CAR	-5.03	1.33	1.43
3	B	902	GYB	OAQ-CAR	-5.01	1.33	1.43
3	B	902	GYB	CAE-CAD	4.71	1.46	1.39
3	D	902	GYB	OAS-CAJ	-4.64	1.14	1.23
3	B	902	GYB	OAS-CAJ	-4.61	1.14	1.23
3	A	902	GYB	OAS-CAJ	-4.58	1.14	1.23
3	C	902	GYB	OAS-CAJ	-4.55	1.15	1.23
3	A	903	GYB	CAA-CAB	4.37	1.66	1.52
3	A	902	GYB	CAE-CAD	4.32	1.46	1.39
3	C	902	GYB	CAE-CAD	4.26	1.46	1.39
3	D	902	GYB	CAE-CAD	4.24	1.46	1.39
3	A	902	GYB	CAU-CAM	4.13	1.55	1.49
3	D	902	GYB	CAO-CAN	3.96	1.46	1.39
3	B	902	GYB	CAO-CAN	3.92	1.46	1.39
3	C	902	GYB	CAU-CAM	3.92	1.55	1.49
3	D	902	GYB	CAU-CAM	3.84	1.55	1.49
3	A	902	GYB	CAO-CAP	3.80	1.45	1.38
3	B	902	GYB	CAU-CAM	3.80	1.54	1.49
3	B	902	GYB	CAO-CAP	3.79	1.45	1.38
3	A	902	GYB	CAO-CAN	3.78	1.45	1.39
3	B	902	GYB	CAE-CAF	3.72	1.45	1.38
3	C	902	GYB	CAO-CAP	3.70	1.45	1.38
3	C	902	GYB	CAO-CAN	3.62	1.45	1.39
3	D	902	GYB	CAO-CAP	3.61	1.45	1.38
3	C	902	GYB	CAX-NBA	3.54	1.49	1.38
3	A	902	GYB	CAX-NBA	3.54	1.49	1.38
3	D	902	GYB	CAX-NBA	3.53	1.49	1.38
3	D	902	GYB	CAE-CAF	3.50	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	902	GYB	CAX-NBA	3.43	1.49	1.38
3	A	903	GYB	NAK-NAL	-3.33	1.28	1.38
3	A	902	GYB	CAE-CAF	3.31	1.44	1.38
3	C	902	GYB	CAE-CAF	3.18	1.44	1.38
3	A	903	GYB	CAC-CAD	-3.02	1.44	1.51
3	A	903	GYB	CAO-CAP	-2.96	1.33	1.38
3	A	903	GYB	CAE-CAF	-2.84	1.34	1.38
2	A	901	NAG	C1-C2	2.79	1.56	1.52
3	A	902	GYB	CAT-CAW	2.09	1.42	1.38
3	C	902	GYB	CAT-CAW	2.08	1.42	1.38
3	A	903	GYB	CAP-CAF	-2.05	1.34	1.39

All (56) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	902	GYB	CAH-NAI-CAJ	-8.88	111.55	120.69
3	A	903	GYB	CAD-CAC-CAB	-6.21	100.17	115.48
3	A	903	GYB	CAT-CAU-CAM	-6.02	113.19	120.64
3	D	902	GYB	CAN-CAM-CAU	-5.89	111.35	118.12
3	D	902	GYB	CAH-NAI-CAJ	-5.83	114.69	120.69
3	B	902	GYB	OAG-CAF-CAE	5.63	135.35	127.86
3	D	902	GYB	OAG-CAF-CAE	5.58	135.28	127.86
3	A	902	GYB	OAG-CAF-CAE	5.15	134.70	127.86
3	C	902	GYB	OAG-CAF-CAE	5.08	134.61	127.86
3	C	902	GYB	CAN-CAM-CAU	-5.07	112.28	118.12
3	A	903	GYB	CAV-CAU-CAM	4.96	128.20	120.34
3	A	902	GYB	CAN-CAM-CAU	-4.91	112.47	118.12
3	A	902	GYB	CAH-NAI-CAJ	-4.34	116.23	120.69
3	D	902	GYB	OAQ-CAP-CAO	4.12	133.34	127.86
3	B	902	GYB	OAQ-CAP-CAO	4.06	133.26	127.86
3	A	902	GYB	OAQ-CAP-CAO	4.02	133.20	127.86
3	B	902	GYB	OAG-CAF-CAP	-3.93	105.02	109.79
3	D	902	GYB	OAG-CAF-CAP	-3.75	105.25	109.79
3	B	902	GYB	CAN-CAM-CAU	-3.69	113.87	118.12
3	C	902	GYB	OAQ-CAP-CAO	3.66	132.73	127.86
3	C	902	GYB	OAG-CAF-CAP	-3.52	105.53	109.79
3	A	902	GYB	OAG-CAF-CAP	-3.44	105.63	109.79
3	B	902	GYB	CAV-CAY-CAX	-3.40	119.13	122.56
3	A	903	GYB	CAD-CAN-CAM	3.21	126.82	121.45
3	A	903	GYB	CAO-CAN-CAM	-3.15	114.27	118.87
3	B	902	GYB	CAR-OAG-CAF	3.12	109.50	105.32
3	D	902	GYB	CAR-OAG-CAF	3.00	109.34	105.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	903	GYB	CAY-CAX-NBA	-2.89	119.16	122.38
3	A	902	GYB	CAR-OAG-CAF	2.82	109.09	105.32
3	A	902	GYB	OAQ-CAP-CAF	-2.81	106.38	109.79
3	A	902	GYB	CAV-CAY-CAX	-2.72	119.81	122.56
3	C	902	GYB	OAS-CAJ-NAI	-2.72	117.42	122.79
3	C	902	GYB	CAR-OAG-CAF	2.69	108.92	105.32
3	C	902	GYB	OAQ-CAP-CAF	-2.66	106.57	109.79
3	A	903	GYB	CAT-CAW-CAX	-2.66	118.75	121.42
3	A	902	GYB	OAS-CAJ-NAI	-2.62	117.62	122.79
3	A	903	GYB	CAC-CAD-CAE	-2.61	111.52	118.52
3	A	902	GYB	CAR-OAQ-CAP	2.50	108.66	105.32
3	C	902	GYB	CAV-CAY-CAX	-2.48	120.06	122.56
3	D	902	GYB	OAQ-CAP-CAF	-2.43	106.84	109.79
3	C	902	GYB	CAR-OAQ-CAP	2.33	108.43	105.32
3	B	902	GYB	OAQ-CAP-CAF	-2.31	107.00	109.79
3	D	902	GYB	CAR-OAQ-CAP	2.28	108.38	105.32
2	C	901	NAG	C1-O5-C5	2.25	115.21	112.19
3	A	903	GYB	CAH-NAI-CAJ	-2.19	118.43	120.69
3	D	902	GYB	CAV-CAY-CAX	-2.18	120.36	122.56
3	C	902	GYB	CAO-CAN-CAM	-2.15	115.74	118.87
3	B	902	GYB	CAR-OAQ-CAP	2.14	108.19	105.32
3	D	902	GYB	OAS-CAJ-NAI	-2.13	118.58	122.79
2	B	901	NAG	C1-O5-C5	2.12	115.02	112.19
3	A	902	GYB	BR1-CAY-CAX	2.10	120.85	118.75
3	C	902	GYB	CAD-CAN-CAM	2.06	124.91	121.45
3	D	902	GYB	CAD-CAN-CAM	2.05	124.89	121.45
3	D	902	GYB	CAE-CAF-CAP	-2.04	119.47	122.03
3	A	902	GYB	CAD-CAN-CAM	2.04	124.86	121.45
3	C	902	GYB	CAT-CAU-CAM	2.02	123.14	120.64

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	A	903	GYB	CAB

All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	903	GYB	NAL-CAM-CAU-CAV
3	A	903	GYB	NAL-CAM-CAU-CAT
3	A	903	GYB	CAN-CAM-CAU-CAV
3	A	903	GYB	CAN-CAM-CAU-CAT

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Mol	Chain	Res	Type	Atoms
3	B	902	GYB	NAL-CAM-CAU-CAV
3	A	902	GYB	CAN-CAM-CAU-CAT
3	C	902	GYB	CAN-CAM-CAU-CAV
3	C	902	GYB	CAN-CAM-CAU-CAT
3	A	902	GYB	CAN-CAM-CAU-CAV
3	B	902	GYB	CAN-CAM-CAU-CAT
3	D	902	GYB	CAN-CAM-CAU-CAV
3	D	902	GYB	CAN-CAM-CAU-CAT
3	B	902	GYB	NAL-CAM-CAU-CAT
3	B	902	GYB	CAN-CAM-CAU-CAV
3	A	902	GYB	NAL-CAM-CAU-CAV
3	D	902	GYB	NAL-CAM-CAU-CAV

There are no ring outliers.

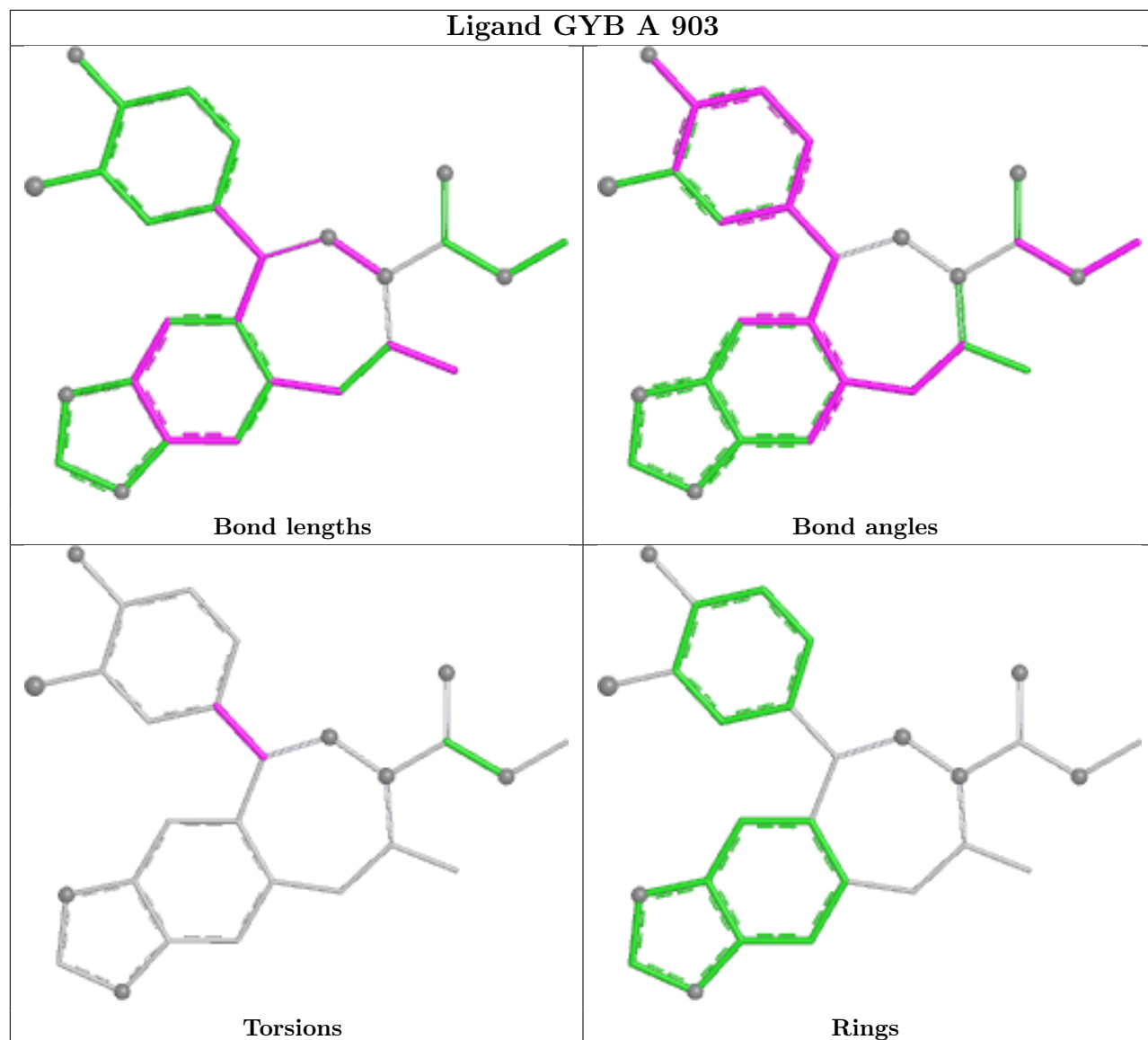7 monomers are involved in 31 short contacts:

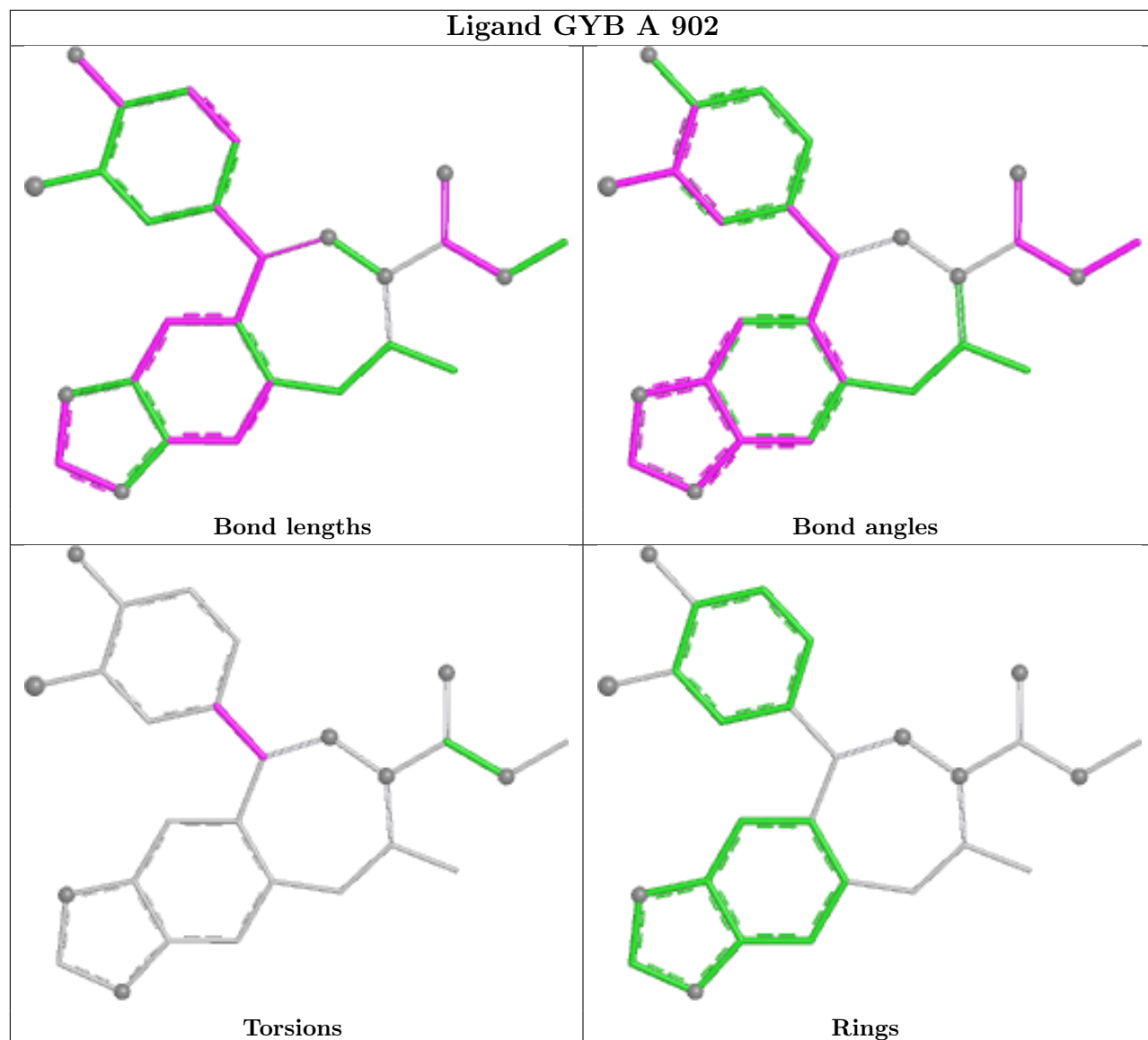| Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	D	902	GYB	3	0
3	B	902	GYB	3	0
3	C	902	GYB	1	0
2	C	901	NAG	1	0
2	D	901	NAG	1	0
3	A	903	GYB	20	0
3	A	902	GYB	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand GYB D 902

Bond lengths

Bond angles

Torsions

Rings

Ligand GYB B 902

Bond lengths

Bond angles

Torsions

Rings

Ligand GYB C 902

Bond lengths

Bond angles

Torsions

Rings

Ligand GYB A 903

Bond lengths

Bond angles

Torsions

Rings

Ligand GYB A 902

Bond lengths   Bond angles

Torsions   Rings
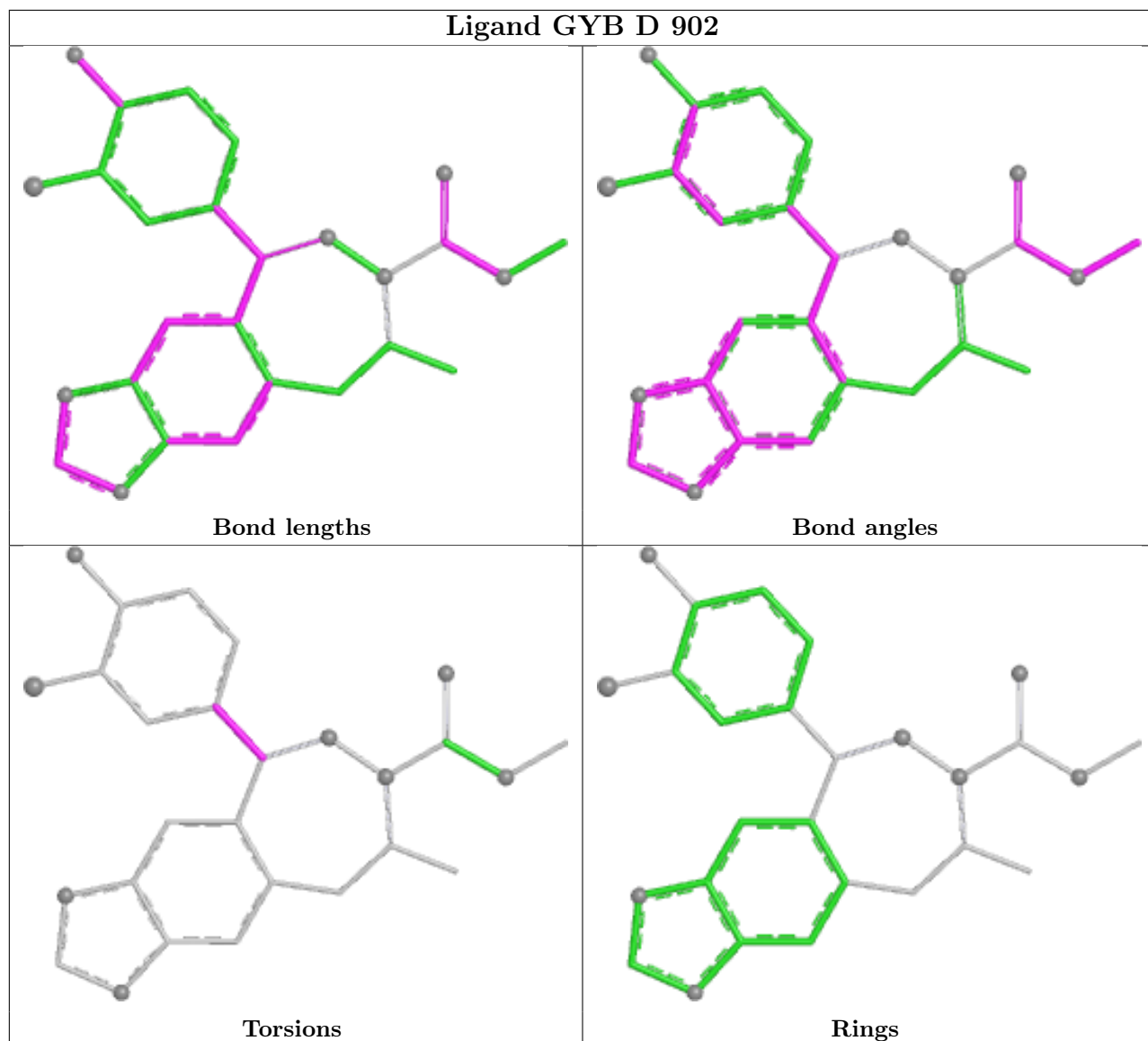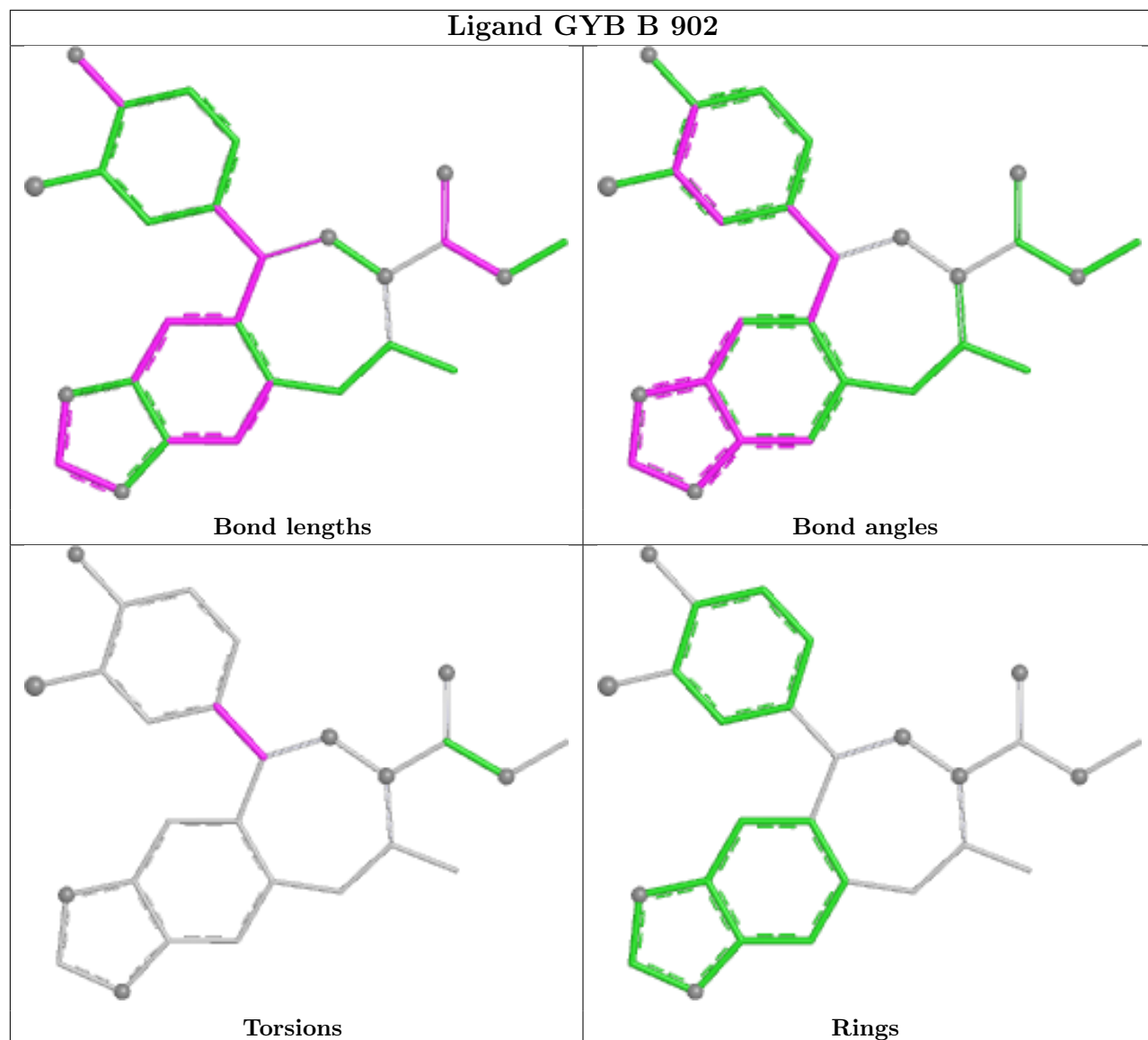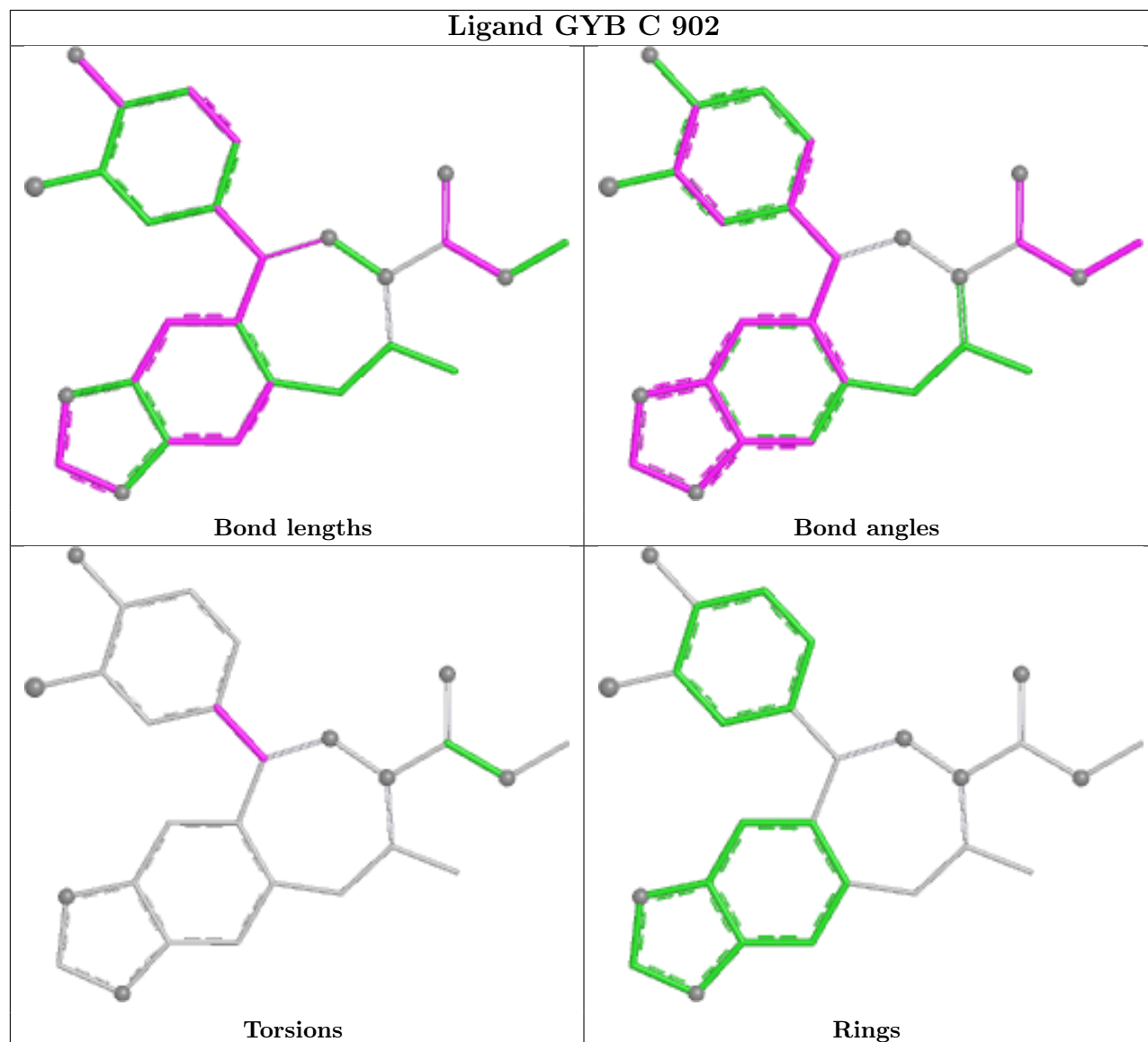
5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

Warning: The R factor obtained from EDS is 0.3115, which does not match the depositor's R factor of 0.2568. Please interpret the results in this section carefully.

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	777/803 (96%)	0.20	28 (3%)	46	35	153, 228, 329, 363	0
1	B	773/803 (96%)	0.42	68 (8%)	17	16	172, 212, 312, 365	0
1	C	774/803 (96%)	0.33	53 (6%)	25	22	146, 255, 314, 341	0
1	D	777/803 (96%)	0.37	52 (6%)	25	22	202, 266, 336, 372	0
All	All	3101/3212 (96%)	0.33	201 (6%)	26	23	146, 242, 325, 372	0

All (201) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	732	TYR	8.8
1	C	534	ILE	8.1
1	D	731	GLY	7.4
1	D	481	ILE	7.4
1	D	157	LYS	6.9
1	A	186	LEU	6.8
1	D	494	PRO	6.5
1	B	698	GLY	6.4
1	B	165	VAL	6.2
1	C	530	VAL	6.2
1	D	484	VAL	6.1
1	C	632	PRO	6.0
1	B	157	LYS	6.0
1	C	531	PHE	6.0
1	C	633	ILE	5.8
1	B	631	SER	5.7
1	D	480	THR	5.7
1	B	604	VAL	5.6
1	B	196	CYS	5.5

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Mol	Chain	Res	Type	RSRZ
1	B	630	VAL	5.5
1	C	457	THR	5.5
1	A	527	MET	5.4
1	D	79	LYS	5.4
1	C	79	LYS	5.2
1	C	186	LEU	5.2
1	C	527	MET	5.2
1	C	458	LYS	5.1
1	D	175	GLU	5.0
1	D	495	PHE	4.9
1	B	203	ASP	4.9
1	D	139	SER	4.9
1	B	200	LYS	4.9
1	D	485	ARG	4.8
1	C	459	ILE	4.7
1	D	733	GLY	4.7
1	D	496	MET	4.7
1	D	453	ARG	4.5
1	D	497	SER	4.5
1	A	309	ARG	4.5
1	B	254	LEU	4.4
1	D	479	LEU	4.4
1	A	387	THR	4.4
1	B	629	MET	4.3
1	D	424	TYR	4.3
1	B	170	ASN	4.2
1	B	204	ILE	4.2
1	C	78	ASP	4.2
1	A	383	THR	4.2
1	C	538	VAL	4.1
1	D	482	THR	4.1
1	B	234	LYS	4.0
1	D	428	LEU	4.0
1	C	586	GLN	3.9
1	D	302	GLN	3.9
1	B	544	SER	3.9
1	B	197	GLU	3.9
1	C	143	LEU	3.8
1	D	167	ASN	3.8
1	D	483	LEU	3.8
1	B	699	LYS	3.8
1	B	780	SER	3.8

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Mol	Chain	Res	Type	RSRZ
1	C	761	LYS	3.7
1	A	654	SER	3.7
1	D	586	GLN	3.7
1	B	194	LEU	3.6
1	C	140	ASP	3.6
1	D	143	LEU	3.6
1	B	750	VAL	3.5
1	C	80	LYS	3.5
1	B	607	PHE	3.4
1	A	47	ILE	3.4
1	D	140	ASP	3.4
1	D	587	GLN	3.3
1	A	306	ILE	3.3
1	B	141	ARG	3.3
1	D	168	ILE	3.3
1	D	729	SER	3.2
1	B	205	VAL	3.2
1	C	510	SER	3.2
1	B	235	ILE	3.2
1	A	531	PHE	3.2
1	B	507	PRO	3.1
1	B	700	TYR	3.1
1	B	696	SER	3.1
1	D	154	ALA	3.1
1	B	192	VAL	3.1
1	B	199	ASP	3.1
1	B	595	SER	3.1
1	A	386	ASP	3.0
1	D	491	PHE	3.0
1	C	456	ASP	3.0
1	D	487	GLU	2.9
1	D	730	LYS	2.9
1	A	276	ALA	2.9
1	D	486	GLU	2.9
1	B	606	TRP	2.9
1	D	451	GLY	2.9
1	A	534	ILE	2.9
1	B	646	ALA	2.9
1	A	84	THR	2.9
1	A	701	ALA	2.8
1	A	68	ARG	2.8
1	A	631	SER	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	632	PRO	2.8
1	C	241	GLU	2.8
1	B	233	LEU	2.8
1	A	586	GLN	2.8
1	B	609	THR	2.8
1	C	533	TYR	2.8
1	C	529	ILE	2.8
1	B	155	GLU	2.8
1	B	605	TRP	2.8
1	A	497	SER	2.8
1	B	206	ASP	2.7
1	B	816	TYR	2.7
1	A	722	LYS	2.7
1	A	723	VAL	2.7
1	D	740	SER	2.7
1	D	739	GLY	2.6
1	B	729	SER	2.6
1	B	116	ASP	2.6
1	C	453	ARG	2.6
1	C	514	VAL	2.6
1	B	523	TYR	2.6
1	C	631	SER	2.6
1	A	629	MET	2.6
1	C	629	MET	2.6
1	D	762	LEU	2.5
1	A	83	ASN	2.5
1	C	142	GLY	2.5
1	C	799	LEU	2.5
1	D	621	ALA	2.5
1	C	584	PHE	2.5
1	B	751	LEU	2.5
1	B	441	LYS	2.5
1	B	457	THR	2.5
1	C	784	THR	2.5
1	B	792	VAL	2.5
1	B	173	LYS	2.5
1	B	255	VAL	2.5
1	C	224	ASN	2.5
1	B	515	PHE	2.4
1	C	802	GLY	2.4
1	B	177	TYR	2.4
1	A	187	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	653	GLY	2.4
1	C	139	SER	2.3
1	C	762	LEU	2.3
1	C	384	GLU	2.3
1	C	594	ARG	2.3
1	B	131	ASP	2.3
1	B	136	LEU	2.3
1	B	231	ASP	2.3
1	C	816	TYR	2.3
1	C	53	ALA	2.3
1	B	168	ILE	2.3
1	D	460	TRP	2.3
1	B	431	GLU	2.3
1	C	52	VAL	2.2
1	D	101	PHE	2.3
1	D	498	LEU	2.2
1	C	184	LEU	2.2
1	D	591	ILE	2.2
1	D	104	ASP	2.2
1	B	778	SER	2.2
1	A	104	ASP	2.2
1	C	803	LEU	2.2
1	D	307	SER	2.2
1	B	291	VAL	2.2
1	B	459	ILE	2.2
1	C	421	TYR	2.2
1	D	515	PHE	2.2
1	D	786	ALA	2.2
1	C	104	ASP	2.2
1	B	202	ASN	2.1
1	B	154	ALA	2.1
1	D	778	SER	2.1
1	D	661	ARG	2.1
1	B	508	GLN	2.1
1	D	11	SER	2.1
1	C	813	GLU	2.1
1	D	690	VAL	2.1
1	B	504	ILE	2.1
1	B	633	ILE	2.1
1	B	220	TYR	2.1
1	B	753	LEU	2.1
1	B	276	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	C	455	ALA	2.1
1	B	159	GLN	2.1
1	A	188	LYS	2.1
1	D	200	LYS	2.1
1	B	163	ILE	2.1
1	C	744	THR	2.0
1	C	180	LEU	2.0
1	C	701	ALA	2.0
1	C	383	THR	2.0
1	C	630	VAL	2.0
1	A	652	SER	2.0
1	A	767	TRP	2.0
1	C	81	SER	2.0
1	C	815	CYS	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($Å^2$)	Q<0.9
2	NAG	A	901	14/15	0.51	0.20	344,344,346,352	0
2	NAG	D	901	14/15	0.55	0.19	358,358,359,362	0
3	GYB	D	902	27/27	0.61	0.11	253,264,269,292	0
3	GYB	C	902	27/27	0.62	0.16	252,261,270,281	0
3	GYB	A	902	27/27	0.64	0.12	259,264,270,279	0
2	NAG	C	901	14/15	0.65	0.27	505,505,507,515	0
2	NAG	B	901	14/15	0.78	0.14	285,285,287,290	0
3	GYB	B	902	27/27	0.78	0.11	253,263,269,275	0
3	GYB	A	903	27/27	0.89	0.64	58,205,248,257	27

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.
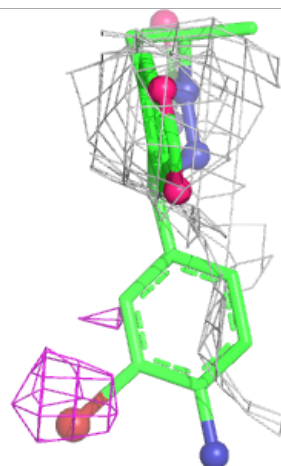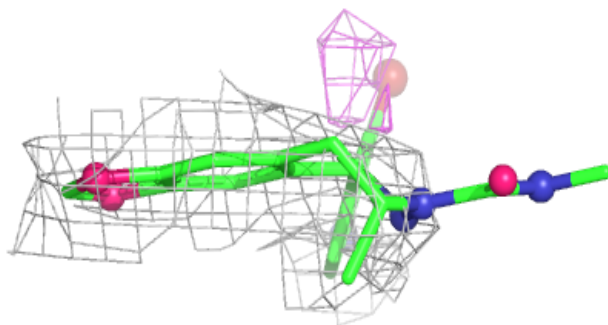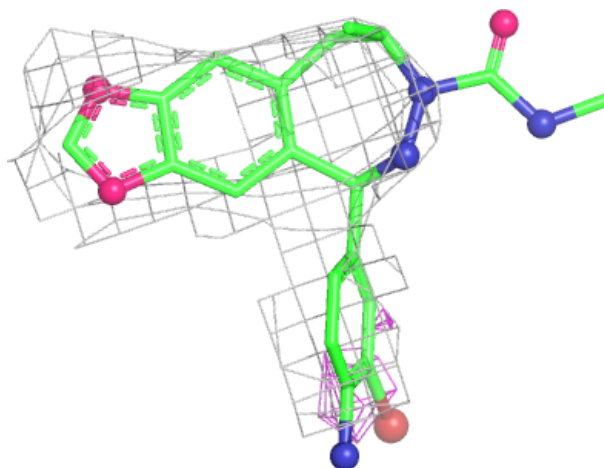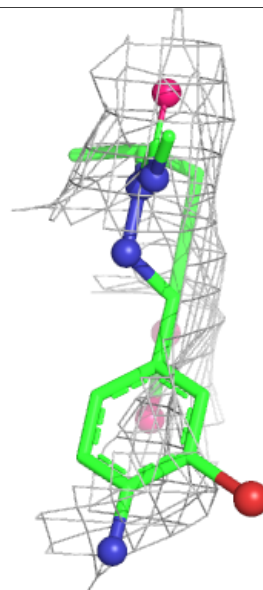
Electron density around GYB D 902:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)
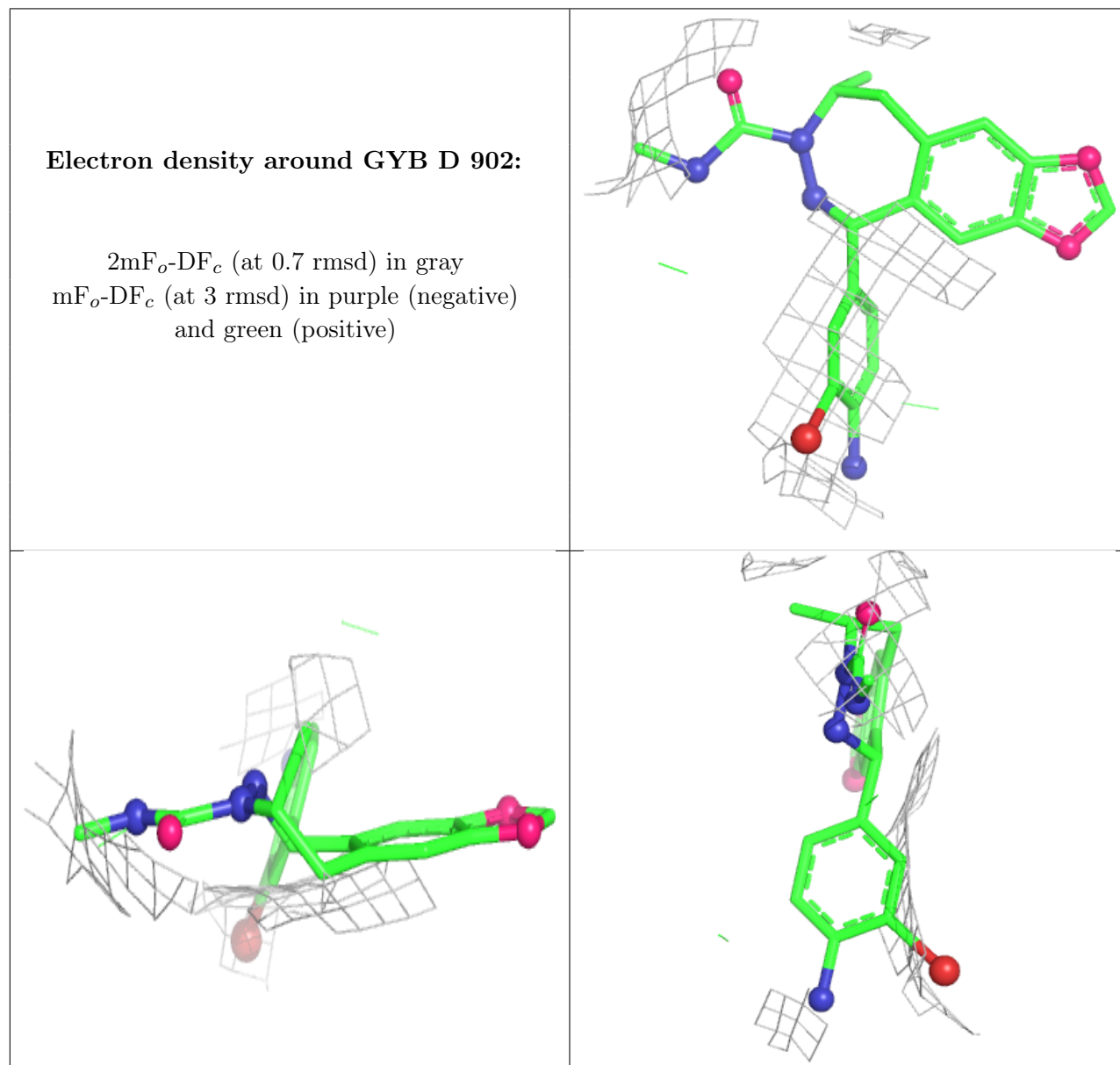
Electron density around GYB C 902:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
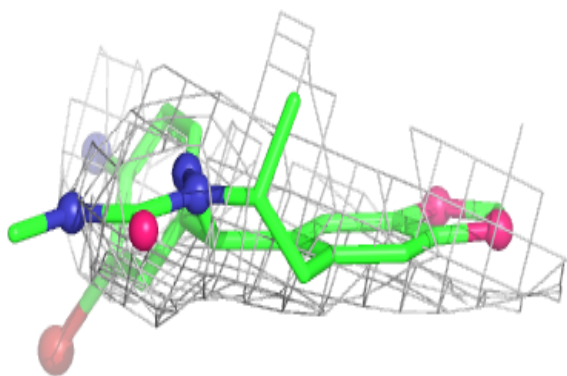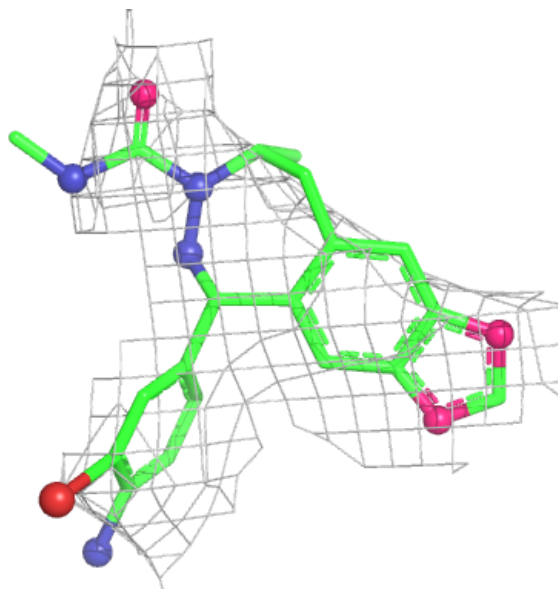mF_o-DF_c (at 3 rmsd) in purple (negative)
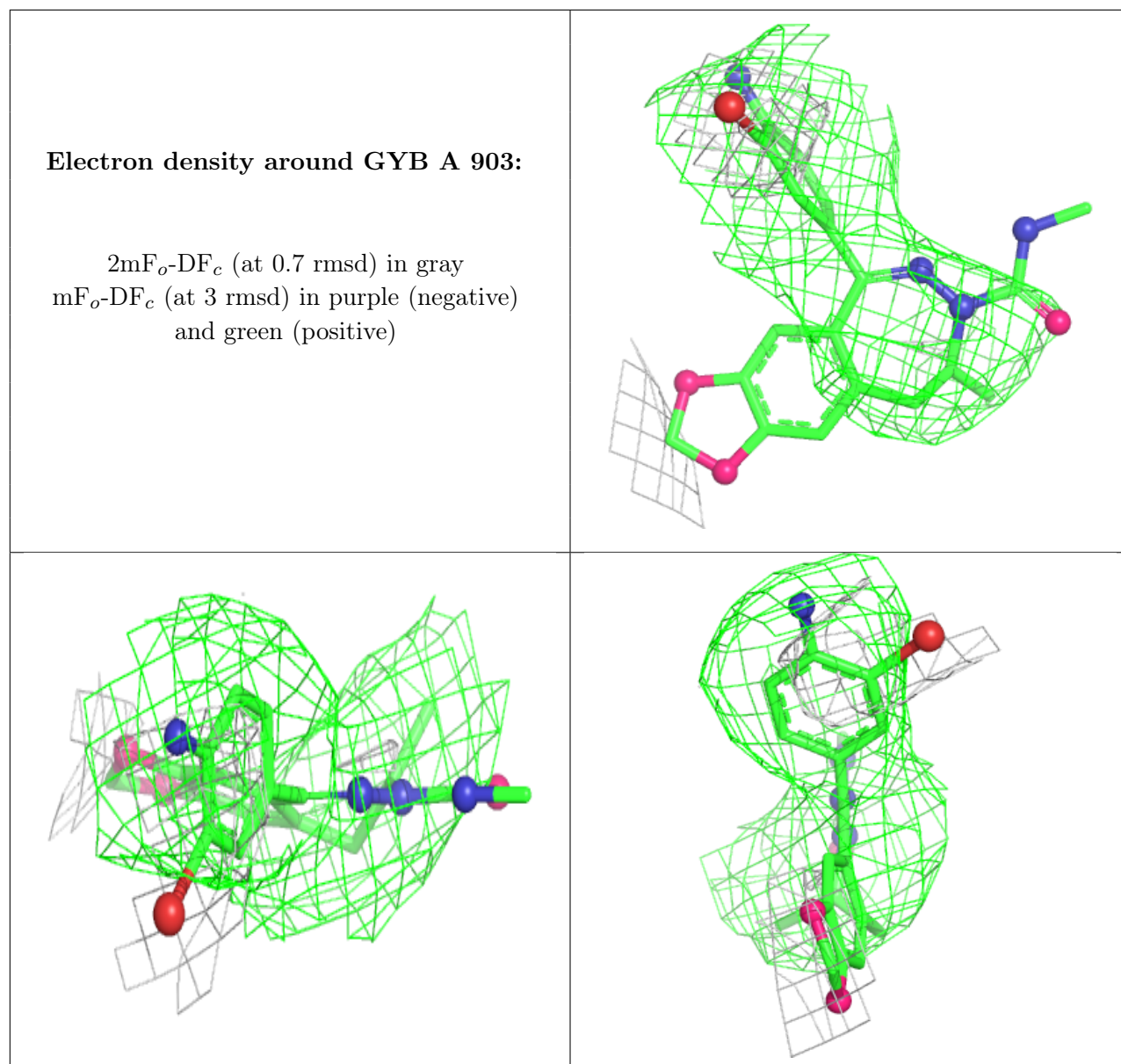and green (positive)
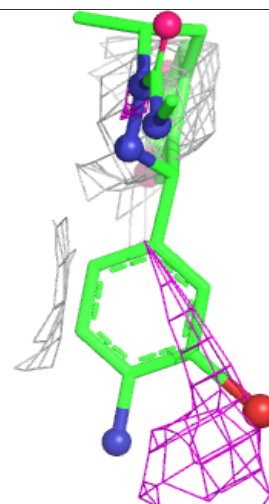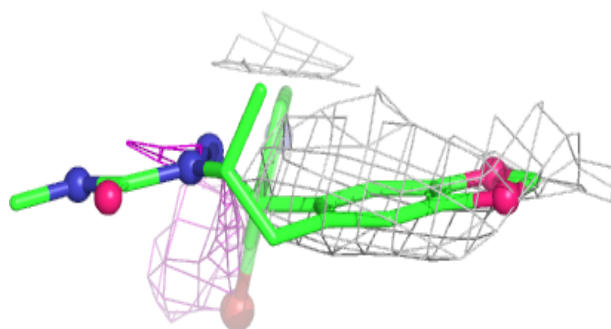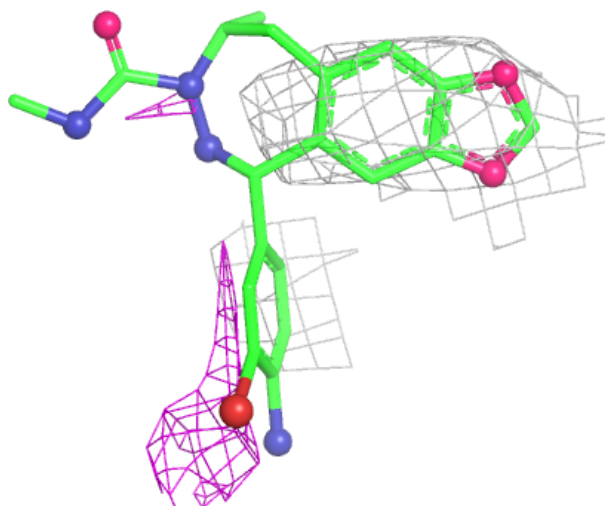
Electron density around GYB A 902:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around GYB B 902:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around GYB A 903:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

6.5 Other polymers ⓘ

There are no such residues in this entry.